352.05
MUNJ
v.13:48-v.14:17
1904:D-1905:Ap
Inc.

Digitized by the Internet Archive
in 2019 with funding from
University of Illinois Urbana-Champaign Alternates

https://archive.org/details/municipaljournal1348unse

352.05
MUNJ
48

THE
MUNICIPAL JOURNAL

No. 618.—Vol. XIII. FRIDAY, DEC 2, 1904 REGISTERED AT THE G.P.O. AS A NEWSPAPER. One Penny.

Official Advertisements.

BOROUGH OF SOUTHWARK.

SANITARY INSPECTOR.

THE Council are about to appoint a SANITARY INSPECTOR, at a salary of £120 per annum, rising £10 per annum, on approved service, to a maximum of £180 per annum

The appointment will be subject to the approval of the Local Government Board, and in accordance with the Public Health (London) Act, 1891, and the General Orders of the Local Government Board.

Candidates must be holders of a certificate from the Sanitary Institute prior to December, 1898, or from the Sanitary Inspectors' Examination Board since that date, and be competent by their knowledge and experience to perform the duties of the office, and the person appointed is to devote the whole of his time to the performance of the duties prescribed.

The officer will be appointed to the district known as St. Pancras district or such other ward as the authority, with consent of the Local Government Board, may determine, and will be required to reside within the borough.

The appointment will be made on the understanding that there will be no pension or superannuation allowance.

Forms of application can be had any day at the Town Hall, Walworth Road, S.E.

Applications on the prescribed forms, accompanied by not more than three recent testimonials, and endorsed "Sanitary Inspector," must be sent to me not later than noon on Monday, January 2nd, 1905.

The Council will proceed to make the appointment on January 18th, 1905.

J. A. JOHNSON,
Town Clerk.

Town Hall, Walworth Road, S.E.
2nd December, 1904.

CITY OF BIRMINGHAM EDUCATION COMMITTEE.

CLERK AND STOREKEEPER.

THE Committee require the services of a Young unmarried Man as CLERK AND STOREKEEPER for the Shustoke Industrial School, near Coleshill. Commencing salary £60 per annum, with board and lodging.

Applications to be made in candidates' own handwriting, stating age, experience (if any), and enclosing copies of three recent testimonials, addressed to the undersigned, on or before Friday, the 9th December, 1904.

JNO. ARTHUR PALMER,
Secretary.

Education Department,
Edmund Street,
24th November, 1904.

PROMOTION impossible without good Penmanship. Rapid tuition. Particulars for stamp. N. Broadbent (Prizeman and Medallist), Alston's College, Burnley.

Official Advertisements.

COUNTY BOROUGH OF CROYDON.

APPOINTMENT OF SUPERINTENDENT OF FIRE BRIGADE.

NOTICE is hereby given, that the Council are prepared to receive Applications for the above Appointment.

The salary will be £150 per annum, with living accommodation at the Central Fire Station, fuel, light, and uniform provided free. Age not to exceed 40 years.

The salary will be subject to an annual percentage deduction in accordance with the provisions of the Superannuation Scheme adopted by the Council under the powers of the Croydon Corporation Act, 1893.

Applicants should be qualified to carry out the administrative as well as the practical working of the brigade.

The person appointed will be required to devote the whole of his time to the duties of the office.

Applications, upon forms to be obtained at the Town Clerk's Office, Town Hall, Croydon, to be sent to me, with copies of three testimonials of recent date, not later than 11 a.m. on Monday, the 12th of December, 1904, endorsed "Superintendent of Fire Brigade."

Recent applicants, if re-applying, need only refer to their former applications.

F. C. LLOYD,
Town Clerk.

Town Hall, Croydon.
30th November, 1904.

BOROUGH OF EALING.

PUBLIC IMPROVEMENTS.

THE Town Council of this Borough hereby invite TENDERS for the WIDENING and IMPROVING EALING ROAD SOUTH and LITTLE EALING LANE.

The drawings and specifications may be seen, and forms of tender, together with schedule of quantities and other particulars, obtained from Mr. Charles Jones, M.Inst.C.E., Borough Engineer, Town Hall, Ealing, W.., any day during office hours, upon payment of a deposit of £2 2s., which will be returned upon receipt of a bona-fide tender.

Sealed tenders, in the envelope provided, endorsed "Tender for Widening and Improving Ealing Road South and Little Ealing Lane," must be delivered at my office not later than 4 p.m. on Thursday, the 8th day of December, 1904.

The Council does not bind itself to accept the lowest or any tender.

Dated this 23rd day of November, 1904.

By order of the Council,
GEO. E. BRYDGES,
Town Clerk.

Town Clerk's Office,
Town Hall, Ealing, W.

In replying to Official Advertisements please mention the "Municipal Journal.

Official Advertisements.

CITY OF YORK.

LEASE OF TOLLS OF SKELDERGATE BRIDGE.

THE Corporation of York give notice that the TOLLS of and appurtenant to SKELDERGATE BRIDGE, YORK, together with the TOLL-HOUSE erected thereon, will be LET by Public TENDER for the term of three years from the 1st day of January, 1905.

The lease will be granted subject to the lessee contracting with such foot passengers as may desire it for a composition not exceeding threepence each person per week in lieu of the usual toll.

The Corporation will retain the statutory power and duty of opening and closing the bridge for purposes of the River Ouse navigation. and the lease will be granted subject to the obligation of opening the bridge for the purposes referred to during the periods prescribed by the Bridge Act, and at such other times as the Corporation may from time to time require, and to the right of the Corporation and its officers, servants, and workmen to enter at all times upon the bridge and toll-house for purposes connected with such opening and otherwise free of toll.

The lessee will be required to pay the rent in advance by equal monthly instalments, and to find sufficient sureties for the due payment of the same, and the performance of the covenants and agreements to be contained in the lease, and also to pay all rates, taxes, and other outgoings in respect of the bridge, toll-house, tolls, and premises over and above his rent.

The draft of the lease and schedule of tolls to be taken may be inspected at the Town Clerk's Office, Guildhall, and further information may be obtained there.

Sealed tenders or proposals, with the names and addresses of the proposed sureties, to be sent to the Town Clerk's Office, Guildhall, York, not later than 10 o'clock in the forenoon of Thursday, the 15th December, 1904, endorsed "Tender for Bridge Tolls" on the outside.

The highest or any tender will not necessarily be accepted.

By order.
R. PERCY DALE,
Town Clerk.

York.
30th November, 1904.

TENDERS FOR CONTRACTS, &c.—Official advertisements respecting works, supplies, &c., should always be sent for insertion in the MUNICIPAL JOURNAL, as its columns are constantly referred to by Contractors to Public Bodies, and the paper is generally recognised as the best medium for the purpose, its extensive circulation amongst those interested in public tenders ensuring the widespread publicity desired by County Councils, Corporations, District Councils, Boards of Guardians, &c. when inviting tenders for contracts of any kind.

(Official Adverts. continued on page 950).

WILL JENKINS

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

EXPANDED STEEL

For ARMOURED CONCRETE & FIREPROOF CONSTRUCTION

FOUNDATIONS.
WALLS.
FLOORS.
ROOFS.
RESERVOIRS.
SEWAGE TANKS.
CONDUITS.
BRIDGES.
GRAIN SILOS.
&c.

IT SAVES 75 PER CENT. IN BULK OF CONCRETE.

Write for Handbook on Practice, Tests, and Tables of Approved Formulæ or any other information.

Remarkable Example of Cement Plaster Work on Expanded Metal.

THE NEW EXPANDED METAL CO., Ltd.,

Telephone—419 Westminster. YORK MANSION, YORK STREET, WESTMINSTER, S.W. Telegrams—Distend, London.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

THE
LIMMER ASPHALTE PAVING Co. LTD.
(Est. 1871.)

Sole Proprietors of the Montrotier Seyssel Mines (Bassin de Seyssel).

Mastic Asphalte for Floors, Roofs, Breweries, Reservoirs, &c.

LITHOFALT MASTIC PAVING.

Highest Award Sanitary Congress, Glasgow, 1904.

Head Offices: 2, MOORGATE ST., LONDON, E.C.

THE BEST JUDGES OF CIGARS.

Now obtain their supplies at

BENSON'S, 61, St. Paul's Churchyard, London

Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards). Samples 5 for 1s., free by post.

TICKET PUNCHES.

As adopted by Corporations, Tramways, 'Buses, Steamboats, &c.

ENQUIRIES SOLICITED.

THE TICKET PUNCH & REGISTER CO., Ltd.,
46, Queen Victoria Street, London, E.C.

THE MUNICIPAL JOURNAL
ESTABLISHED AS "LONDON." TWELFTH YEAR OF ISSUE.

No. 618.—Vol. XIII. DECEMBER 2, 1904.

ANOTHER NEW BOROUGH IN GREATER LONDON.

Wimbledon is to Have a Charter of Incorporation and the "Proper Municipal Government" it Desires. It is Well-Equipped with Local Institutions, and Quite Ready for a Mayor, Alderman, and Councillors.

THE announcement that the Lords of the Privy Council have decided to recommend the grant of a Charter of Incorporation to the urban district of Wimbledon will be received with gratification by the bulk of the residents in that favoured and thoroughly progressive suburb of London. It was in October of last year, as mentioned in the *Municipal Journal* at the time, that the petition praying for incorporation was formulated by a committee of active residents, headed by Mr. W. H. Hamshaw, the chairman of the Urban District Council, and the fact that the prayer has been heard and granted in so short a time is regarded as striking evidence of the strength of the case then presented. A sketch of the municipal history of the district was given in our issue of October 30, 1903, and it is only necessary to briefly recapitulate the main points. Wimbledon, which covers an area of 3,220 acres, and has a population of nearly 50,000, is the second largest and most important town in the county of Surrey. It has a rateable value of £380,000, and its indebtedness at the close of last year was £326,637. It is supplied with gas by a company, but the Council has spent £122,070 on electric lighting works, which last year showed a profit of £2,027, after providing for the repayment of loans and interest. The Free Libraries Acts are in force, and a fine technical institute has been erected at a cost of £7,000. The Council also owns public baths, an infectious diseases hospital, five fire stations (the central one costing £5,000), sewage farms, dust destructors, four recreation grounds, and a cemetery, the Council being the Burial Board for the district. The Council's cemetery has an area of about 20 acres, and a mortuary has been erected upon part of this land. The sanitary arrangements, taken as a whole, are thoroughly modern and up-to-date, and the death rate for 1903 was only 11·5 per 1,000 per annum, a figure which compares favourably with that of any other district. The Council has also taken up its educational duties in a businesslike manner, and the scheme it drew up was the first to be approved by the Education Department.

PUBLIC BATHS.
SUB FIRE STATION.

TECHNICAL INSTITUTE.

SEWAGE PUMPING STATION, &c.
ELECTRICITY WORKS.

It will be seen that Wimbledon has all the necessary qualifications for a corporate borough, and it is to be congratulated upon its coming dignity.

THE MILK SUPPLY IN TOWNS.*

Should the Milk Companies be Amalgamated or Should the Supply be Municipalised? An Expert is in Favour of the Latter Course, and Insists on the National Importance of the Question.

By DR. EDMUND CAUTLEY.

TWO courses are open if a reasonable scheme is to be adopted for the reform of the milk supply.

(1) Amalgamation of the Milk Companies.

As a means of carrying out my proposals on a limited scale, I snggest that milk companies should amalgamate and obtain Parliamentary powers, somewhat similar to those which the old water companies possessed. Chief among these should be an authorised area of distribution. Or each separate milk company might be granted a limited area in which it alone should be allowed to supply milk.

Milk is a national necessity. To the infant it is more necessary than water, and in later life it is nsed in some form or other by every adult, with rare exceptions. It is, therefore, a reasonable proposal that the milk snpply should be placed under much the same conditions and the same restrictions as the water supply. By this means it would be under more efficient control.

Let, then, Parliament grant to each milk company of a certain size, or, better still, to an amalgamation of several companies, an area of distribution such as a parish or borough, with certain definite restrictions, viz.:—

That the milk must be the undiluted product of the cow, uncontaminated by preservatives, filtered and bottled at the farm or local depot, cooled down to 40 deg. Fahr., containing 3·0 to 3·5 per cent. of fat and not more than 100,000 micro-organisms per cubic centimetre, and at a price not exceeding 2d. a pint.

It would be justifiable to allow the lower percentage of fat and dilution of the milk to this level, if it were really necessary to meet an increase in expenses.

(II.) Municipalisation of the Milk Supply.

The only plan for dealing with the matter thoroughly seems to me to be the mnnicipalisation of the milk supply. That the supply should be managed in a scientific manner, rather than according to the haphazard methods at present in vogue, will be generally admitted. Its management should pass as soon as possible directly into the hands of the municipal authorities rather than through the intervention of milk companies which will eventually have to be bought up in the same way as the water companies.

Of course, it is an immense undertaking to assume the complete control of the milk supply. It would lead to great opposition from the companies and from individual dealers, and probably from the numerous members of the public who have not an unlimited faith in municipal trading. Neither the County Council nor the borough councils have powers to undertake the functions of milk dealers. Let them obtain such powers, if possible, and then apply my suggestions practically, but tentatively, in a limited area (say one parish or borough), and note the effect on the infantile mortality and the spread of infectious disease.

The one drawback to the limited application of the system lies in the impossibility of guaranteeing that no other milk is bought by the inhabitants of the particular district. Milk is not like water, a fluid which can be laid on in pipes and delivered in practically unlimited quantity. The objection is not a serious one, for it is fairly certain that the inhabitants of the special district would very soon realise the superior qualities of the mnnicipal milk, and the advantages of the bottle system.

Municipal Milk for Infants.

Municipal bodies have already gone into the business of milk dealers to a limited extent, so I am not proposing something quite ont of their cognisance. Several of them, in various parts of the country, are undertaking the supply of modified—wrongly called humanised—milk for infants, and are supplying it in bottles. This milk has many advantages, but is not free from several disadvantages. It is obtained from special farms, though I doubt whether the management of the milk prodnction on the farms would fully meet my requirements. It is usually delivered in sealed cans.

On the other hand, there is no bacteriological examination made of the milk on arrival at the milk laboratory, and the process of sterilisation may be consequently applied to an unsatisfactory milk which will then be distributed under the ægis of anthority. If municipal bodies intend going on with the business, they ought to keep their own cows on their own farms, and have the milk sent up in bottles. The whole of the processes should be carried out at the farm, and the town establishment should be merely a distributing depot. Apart from objections arising from the way in which the system is carried on, there are others due to the system itself. It discourages breast feeding. It relieves the mother of the trouble of preparing the food, and thus diminishes the sense of responsibility she bears towards her infant. It makes the municipal body an inferior kiud of wet nurse. It is too expensive.

At Battersea the cost per child is 1s. 6d. to 2s. per week, and more if the child lives outside the borough. The modification of the milk and the management of the particnlar infant should be supervised by a medical man thoroughly conversant with the feeding of infants. If such supervision and control are provided, the establishment becomes nothing more than a kind of dispensary, and leads to panperisation. Statistical results are often quoted in illustration of the value of municipal milk, but they are of no real value.

In conclusion, let me insist on the great importance of the milk question to the nation as a whole and to the infants in particular. Time after time have I pointed out that on the food supply in infancy depend the health and strength of the adults; that a large infant population is a valuable economic factor in the welfare of the nation; that with a diminishing birthrate more vigorous attempts should be made to reduce the infantile mortality; and that we should hear little about the supposed physical degeneration of the nation if the food supply in infancy and childhood were more satisfactory.

London is a great city, the centre of a powerful nation, and there is much of which we can be justly proud. Conld we, however, transport ourselves into the future, there would be doubtless many things of which we should be more justly ashamed, and among these I assert that the management of our milk supplies would hold an unworthy pre-eminence.

* From a Paper read before the Council of the Charity Organisation Society.

MUNICIPALISING THE BRITISH CANALS.

THE British canals problem was discussed at the Society of Arts on Wednesday night, and it was the opinion of Sir Michael Hicks-Beach, the chairman, as well as of Mr. Arthur Lee, who read an exhaustive paper on the subject, that the way to solve it was to allow local authorities, either singly or combined, to acquire the canals and to work them. Sir John Brunner, M.P., unlike the Father of the House, thought the State should buy up the canals. Mr. Lee insisted upon the necessity for developing our waterways, observing that the Continental nations had set us a striking example in the spending of millions upon their construction aad improvement.

COST OF TECHNICAL EDUCATION.

DURING the year 1902-3 the local authorities of England and Wales expended £1,191,998 on technical education, this snm being exclusive of the sums allocated to intermediate and technical education under the Welsh Act of 1889. From the Blue Book just issned, which deals with the matter, we learn that the amount raised by loan, on the security of the local rate, was £149,665; that the amount outstanding of loans so raised was £1,159,941; and that the balance in hand of moneys received and allocated to technical instruction was £598,989.

The amount of the residue received by the councils and connty boroughs in England nnder the Customs and Excise Act during the financial year was £879,405. Of this sum £840,253 was appropriated to educational purposes, and £39,152 to the relief of rates, the latter sum inclnding £22,366 so devoted by the London Connty Council. Of 49 county conncils, 45 were applying the whole of the residue to edncation and three a part of it; 61 of the 64 county boroughs devoted the whole amount to the same purpose; whilst four connty councils, 31 county boroughs, 101 boroughs, and 211 urban districts in England were making grants out of the rates nnder the Technical Instruction Acts. Thirty local anthorities were devoting fnnds to technical education out of the rates levied nnder the Public Libraries and Musenms Acts; and 33 raised sums by loan under the Technical Instruction Acts. The total amonnt expended on technical education in England during the year was £1,149,216, and in Wales £42,781.

HULL DISTRICT WATER SUPPLY.

AT the last meeting of the Hull Council a report from Mr. F. J. Bancroft, the borough engineer, was submitted on the proposed extension of the water supply to South Holderness, including Hornsea, a matter which has already been the snbject of a Local Government Board Inquiry. The district embraces a number of small hamlets, with a total population of 8,639, and Mr. Bancroft estimates the cost of constructing the mains to Hornsea and Withernsea at £40,000, including £5,000 for land upon which the engine and boiler house would be erected. On the side of revenue it is estimated that the water conld be obtained from the Hull Corporation at 6d. for 1,000 gallons, which, on a sale of 250,000 gallons a day (equal to 91,250,000 per annum), would cost £2,881. Labour, &c., would require £1,140, and sinking fund and interest charges, £2,000, making a total of £5,421. Ninety-one-and-a-quarter million gallons of water, at 15d. per thonsand, would prodnce £57,403, leaving a balance of £282. The report will be further considered.

THE first "smoker" in connection with the staff of the Metropolitan Water Board took place on Wednesday evening at the Caxton Hall, Westminster. Mr. A. B. Pilling, the clerk to the Board, presided, and was supported by Sir R. Melville Beachcroft, the chairman of the Board, who had a most hearty reception. A capital programme was carried out under the direction of Mr. Charles Capper.

AT a meeting of the Streets Committee of the Swansea Corporation on Tnesday it was reported that the dnst destructor had dealt with 4,933 tons of refnse dnring the past four months—an average of 48¼ tons a day. The report of a sub-committee on a proposal to erect brick-making plant for the utilisation of the clinker produce of the destructor was discnssed. The Chairman (Mr. Merrells) said the labour cost was estimated at 5s. per 1,000, and if a like snm were added for capital and material they wonld have a cheap brick. It was decided that the surveyor should report on the snbject.

MISREPRESENTATION BY CIRCULAR

The Yorkshire Electric Power Company and Combined Electricity and Refuse Destructor Works. The kind of Letter that is Sent to Frighten Councillors. Misleading "Facts" and Erroneous Conclusions. Why Companies Oppose Dust Destructors. Enterprises that Pay.

WE have before us a circular letter issned by the Yorkshire Electric Power Company, and apparently one of a considerable number of such letters addressed to councillors in Yorkshire towns. The main object of the letter is evidently to stifle municipal enterprise in so far as electric lighting is concerned, and the attention of the councillor is especially directed to the economic advantages to be secured by taking electric power in bulk from the generous and accommodating company, rather than the municipal generation of current, in part from refuse.

At this time, when some 60 municipalities possess combined electricity and destructor works, it is not so easy to bamboozle the councillor, even in small and somewhat remote towns. The circular letter in question is singularly weak in its arguments against combined electricity and destructor works.

Nor is weakness the only featnre of this curious circular letter. We shall endeavour to show that it very seriously misleads the councillor. With this end in view, carefully selected statistics are qnoted; so carefully, indeed, have these figures been compiled that the returns of the Llandudno works for the year ending March 31st, 1904, are ignored when they show a *nett surplus* of £54, while the *previous year's* figures, which show a *loss*, are included instead.

The Truth of the Matter.

We have thought it advisable that the councillor and the ratepayer shonld know the truth of the matter, and in reviewing the question of combined electricity and destructor works, we shall discuss the said circular letter, showing the reader how and why power companies adversely criticise municipal undertakings, in the form of combined electricity and destructor works.

The reader may naturally ask why electric light and power companies do not take kindly to combined electricity and destructor works, and why they are not keen to take advantage of snch power as may be derived from towns' refnse? The reason is not far to seek, as we shall proceed to show.

It must be remembered that the refuse destructor *as a sanitary adjunct* possesses no interest whatever for a power company. What cares it abont refuse disposal? From the company point of view the destructor mnst be a dividend producer, and unless it fulfils this, the company's primary purpose, it is not worth a moment's consideration.

Destructors as Sanitary Adjuncts.

On the other hand, the municipal authority has to consider the destructor primarily as an economic sanitary adjunct. The municipality is responsible for the public health; its interests are comprehensive, and not isolated, personal, and financial; its duty is to serve the interests of the community in the best possible manner. and cannot in any broad sense be fairly compared with the obligations of the company, which are briefly but completely expressed in that attractive word *dividend*.

While sanitary improvement does not appeal to the capitalist because it cannot always be expressed in pounds, shillings, and pence at the end of the first financial year, it does appeal to the councillor and the citizen whose interests are not confined to the narrow groove of personal gain. Further, there are advantages which accrue to the community thereby which are ignored by those whose cult is monopoly.

Advantages of Destructors.

Generally speaking, it is advantageous to the ratepayer to combine a refuse destructor with an electricity works, for two reasons. Firstly, because the available power can be fully utilised; and, secondly, because the central location of the average electricity works means the minimum of cartage cost for the refuse and expeditious collection.

The following figures are available concerning the reduced cartage or collection cost in towns where destructors have been combined with electricity and other municipal works centrally located:—

Darwen ...	£300 to £350 per annum.
Kettering ...	Cartage costs reduced by one-third.
Mexborough...	£200.
Weymouth ...	£230 (combined with central sewage works).
Sheerness ...	£350 (combined with central water works).

It may be taken as a fact that in every case where a destructor is combined with an electricity works a good saving in collection cost is secured, and although this does not benefit the electricity works account, it does unquestionably benefit the ratepayer.

A Necessary Condition.

It shonld be made a condition of any contract with a power company that it not only provides a refuse destructor in combination with its electricity works, but what is more, *the local authority* should reserve to *itself* the sole right of choice in connection with the type and make of destructor.

Inferior generating plant wonld cause the company trouble and touch its pockets, bnt a cheap and inefficient destructor erected in a central position might be a source of offence to the community. It is, therefore, only reasonable that the local authority should decide upon that make of destructor which it is satisfied is perfectly efficient.

In taking up this attitude any local authority with a leaning towards monopolists will not frighten them; on the contrary, so anxious are the latter to secure the Provisional Order, that if the councillors stand firm on the destructor qnestion they will be masters of the situation and secure for their town sanitary efficiency in spite of the companies' allegations concerning the worthlessness of such combined undertakings.

We are told in the circular-letter already referred to that "even with destructors in existence, many local authorities have decided not to combine them with electricity stations. . . . ."

We fail to see anything extraordinary in this; many destructors were erected *before* electricity works were thought of, and consequently the former are located on sites which would be quite unsuitable for the latter; to take the electricity works to the destructor in such circumstances would be the height of stupidity.

Where Destructors Have Been Added.

On the other hand, many towns have decided to combine destructors with electricity works which have been in successful operation for many years before the destructor was thought of. Such value was, however, placed upon the refuse as to cause the following authorities to decide to generate power from refuse many years *after* the erection of the generating station. In short, the destructor has been brought to the electricity works.

Ayr	Lancaster
Barrow	Liverpool
Bradford	Nelson
Burnley	Nottingham
Hanley	Wolverhampton

All the above stations show a good annual surplus, but, as they well represent "the other side of the case," they are passed over in silence by the power company in its letter. It would obviously prefer that the councillor should know nothing about such unique examples; but its silence thereon cannot hoodwink any intelligent man, who can find full particulars concerning the whole of the towns here mentioned in the published official returns.

A Misleading Table.

It is necessary to reproduce the following table from the Yorkshire Electric Power Company's letter, in order to clearly show to what length monopolists will go in their attempt to secure the support of the councillor:—

"**Refuse Destructor Combined with Electricity Works.**

Financial result of the working of the above in towns of less than 30,000 inhabitants:—

Town.	Year of working.	Population.	Loss on the year.
Bangor ...	1903 ...	11,800 ...	£619
Beckenham..	1903 ...	28,200 ...	582
Dartford ...	1903 ...	18,600 ...	1,292
Grays ...	1904 ...	15,000 ...	74
Llandudno...	1903 ...	9,300 ...	368
Mexborough	1904 ...	10,417 ...	340
Shipley ...	1904 ...	26,500 ...	125
Wrexham ...	1903 ...	15,000 ...	560
Cleckheaton	(No figures published, but a loss has been incurred)."		

Before dealing with the cases quoted, it should be borne in mind that there is an early attempt on the part of the company to mislead. The statement at the head of Column 2, "*Year of Working*," as a matter of fact should read "*Year ended* March 31st."

In the case of each of the towns named in the table, it is assumed that the loss has been *pro rata* for the nine months *after* March 31st, for which no figures are available. This is an unwarrantable assumption, which might mislead the councillor, and support the case for the monopolist.

We will now deal with towns mentioned in the table. In the case of Bangor, the unfortnnate result may be mainly attributed to the unsatisfactory design of the station. The destructor, being an afterthought, is so located as to be inefficient in power production; but, while this is admitted, we may fnrther add that it will not be long before a considerable improvement is effected, the authorities having recently decided upon such alterations as will materially increase the general efficiency.

We come now to the case of Dartford, and we would ask the reader to carefully observe that the figures quoted refer to the year *ended* March 31st, 1903. Now, as a matter of fact, *the refuse destructor was not built at this time, and not one pound of refuse was destroyed until February 24th, 1904.*

What connection there can be with a destructor which was only erected eleven months *after* the end of the financial year, showing a loss of £1,292 on the electricity works, we fail to see; but it is undoubtedly a very forcible argument to lay before the councillor whose knowledge of the date of Dartford destructor opening would possibly be on a par with his experience of the stone age.

The Position at Grays.

Grays is the next town quoted in this remarkable table. There was a loss of £74 for the year ended March 31st, 1904 (not for the *year* 1904).

Mr. E. D. Long. the electrical engineer to the Grays Urban District Council, has kindly given us the following statement, covering the first two years' work, ended on March 31st last:—

	Year ended Mar. 31, 1903.	Year ended Mar. 31, 1904.	Increase.	Per cent. increase.
Revenue	£1,957	£2.604	£647	33
Expenditure ..	£1,297	£1,513	£221	17
Gross profit ..	£660	£1,086	£426	64
Lamps connected	5,353	7,124	1,771	33
Units sold ...	108,469	138,820	30,351	27

A gross profit of 5¾ per cent. on the capital expenditure for the second year's operation is an excellent result for such a small works, destroying an average of 9 tons of refuse daily; and it will be clear from the column of per centage increases that the year ended March 31st next will show a nett surplus. There is nothing to be ashamed of in the Grays fignres; the ratepayer in this small Eesex town has no complaint to make about a paltry deficit of £74 at the end of two years' working, and it may be observed that the power company must have been hard put to in the compilation of its table to include such an awful example as Grays.

An "Over-sight."

That well-known North Wales seaside resort, Llandudno, figures next in the table, but the reader is again misled. Why publish the returns for the year ended March 31st, *1903*, showing a *loss* of £368, when the returns for the year ended March 31st,

1904, showing a *nett surplus* of £54, are available and were published months ago?

We may be told that this was an oversight, but curiously every mistake is on the one side, *i.e.*, that of the monopolists.

Mexborough comes next in the table with a deficit of £340, but this was eight months ago, at the end of the second year. When the returns are made up to March 31st next, we shall see a very different result. It is confidently anticipated that this balance-sheet will show a nett surplus of £500; in fact, it is now known that a good nett profit is being earned.

With regard to Shipley, Mr. Schofield, the chief electrical engineer, states that "to suggest any loss as having been due to the destructor is absurd."

During the first year's operation of the Shipley undertaking a gross profit of £814 was earned, and this in spite of the fact that current was sold at a lower figure to consumers than is being offered for supply in bulk to local authorities by the Yorkshire Electric Power Company at the present time.

Now to deal with the second year, i.e., the year ended March 31st, 1904. A gross profit of £2,072 was earned, notwithstanding the increase of capital expenditure from £30,000 to £43,000, and after meeting all capital and standing charges there was a loss of £125.

It is safe to say that what has been accomplished at Shipley, under the able management of Mr. Schofield, could not be equalled by the Yorkshire Electric Power Company, or any other power company, under similar conditions. Enemies of municipal trading are welcome to any satisfaction they can derive from the example of Shipley, but we are able to state upon the highest authority that the Shipley ratepayers are well satisfied, and after all they are the people who are intimately concerned with the outcome of their own enterprise.

Refuting a Gross Error.

Mr. W. Sillery, the borough electrical engineer of Wrexham, in sending a printed copy of the electricity accounts, remarks as follows: "I hope you will refute so gross an error." As in the case of Mexborough, so with Wrexham. Since the issue of the last financial statement eight months ago, great strides have been made; there is a phenomenal increase in the revenue account, with the result that the undertaking is now being operated at a profit, in spite of increased capital expenditure for traction purposes.

Cleckheaton figures at the end of the list of alleged failures with the following remark: "No figures published, but a loss has been incurred." The first year's figures have not yet been published; possibly, therefore, the following details will be of interest: Gross profit, £1,000; capital and standing charges, £1,320; deficit for the *first year*, £280.

While this may be welcome news to the monopolists, we would commend for their consideration at the same time the statement of the chairman of the Council:—"If the destructor had *not* been erected in combination with the electricity station, the cost to the ratepayers would be £310 per annum in excess of the present expenditure. Further, there is a considerable saving in the cartage cost, as also on account of a refuse tip which would have to be provided if no destructor existed."

Towns Which are Omitted.

We have now disposed of this remarkable list, compiled with business acumen, but with a sorry disregard for the facts. It would not have served the interests of the monopolists to include the following list of towns where combined electricity and destructor works yield a good annual surplus:—

Station.	Year ended March 31.	Surplus after providing for interest and sinking fund.
Bermondsey	1904	£509
Hackney...	1904	5,546
Shoreditch	1904	996
Stepney...	1904	5,936
Ashton-under-Lyne ...	1904	1,270
Barrow	1904	479
Burnley	1904	5,124
Canterbury	1904	812
Lancaster	1904	1,506
Llandudno	1904	54
Nelson	1904	401
Partick	1904	623
St. Helens.	1904	2,600
Warrington	1903	129

No one would be so foolish as to suggest that it is possible to produce such a list as the foregoing, solely because a certain amount of power is being produced from refuse, but the fact remains that here we have a list of successful combined works, all of which monopolists must perforce leave severely alone. That it is possible to follow their crippled table with one so unique and beyoud criticism, is in itself a remarkable testimony to the success of municipal trading.

The urban district councillor, or even the borough councillor, may not be all that we should desire, but we can scarcely believe that he is likely to be influenced by such circular letters as we have discussed, and monopolists must clearly feel very uncomfortable about the future, or they would not endeavour to advance their interests by the issue of such a letter.

Monopolists are alarmed because the close of each financial year adds to the list of successful municipal undertakings and justifies municipal trading, a result pleasing to the citizen, but as gall and wormwood to the monopolist.

CITY OF LONDON BARBERS.

NEW RULES FOR HAIRDRESSING AND SHAVING.

HAVING dealt with bakehouses and restaurants, the sanitary authorities of the City of London have turned their attention to barbers and hairdressers, and the Court of Common Council has approved the following drastic rules:—

(1) All shelves, fittings, and tables on which instruments are placed to be of glass, marble, slate, or other similar material.

(2) Clean towels, &c., to be used for each customer, and a fresh piece of paper or clean linen to be placed on the back of chair or head-rest.

(3) No general powder puffs to be used, and powder pulverisers or cotton wool substituted. No sponges to be used.

(4) All hair clippers, razors, scissors, combs, or other tools, after use, to be placed in a disiufecting solution.

(5) Razors to be wiped on paper.

(6) Perfectly clean hair brushes only must be used.

(7) Shaving brushes after use to be placed in a disinfecting solution.

(8) Cut hair falling on the floor to be immediately swept up and removed, and floors to be cleansed daily.

(9) No general alum crystals or blocks as a styptic to be used, and a liquid powder to be applied on towel or cotton wool or by spray.

(10) The most scrupulous cleanliness to be observed in all that pertains to the business.

These regulations have been arrived at by the Public Health Department, in conjunction with the Incorporated Guild of Hairdressers, and as the latter body represents the chief authorities in the hairdressing business, the proposals, it is hoped, will have the approval of "the profession."

TRAFFIC TRACTION IN THE STREETS.

IN reply to a communication from the Finsbury Borough Council, relative to the annoyance and risk of damage caused by the passage of heavy traction engines through the streets, several London councils have stated their views on the matter. Deptford is against any bye-laws on the subject, as they would place a restriction on trade. Chelsea states that it is already in communication with the Local Government Board and the London County Council on the subject. Kensington has made repeated representations on the subject, and is awaiting the report of the London County Conference before taking further action. St. Pancras has passed a resolution on similar lines to that of the Finsbury Council, and Fulham, Holborn, Lewisham, Shoreditch, and Stepney state that they will be represented at the Conference.

AN advertisement appears in our columns for a fire brigade superintendent for the County Borough of Croydon. The vacancy is caused by the retirement of Superintendent Mitchell, who has taken up the post of brigade superintendent at Cape Town. The Croydon Council recently filled the vacancy by the appointment of the superintendent of the Wigan Brigade, who has since withdrawn from the appointment.

MUNICIPAL SECURITIES.

THE SOUTHAMPTON "DEFAULT" EXPLAINED.

THE Town Clerk of Southampton (Mr. R. R. Linthorne) writes us with reference to the case of "defaulting Southampton," alluded to last week in an article headed "The Safety of Municipal Securities." Mr. Linthorne also forwards us a print of the evidence he gave before the Joint Select Committee on Municipal Trading, during which he proved that the statement made by Mr. Tritton, that the bankers of the Southampton Corporation (the Capital and Counties Bank, Limited) had lost money in respect of an overdraft by the Corporation, was inaccurate. "Not a penny," stated Mr. Linthorne, "has been lost by them either in respect of an overdraft or anything else."

The facts of the case are as follow:—

In 1895 the borough boundaries of Southampton were enlarged so as to include among other things, the Urban District of Shirley and Freemantle. The extension of the boundaries was strongly opposed by the Urban District Council both at the Local Government Board inquiry and in Parliament. When the matter was before Parliament the Corporation agreed to give to the added areas certain immunities in respect of the general district rate, and this concession was inserted somewhat hurriedly by the representatives of the Corporation and the District Council in the Local Government Board's Order then before Parliament for confirmation.

Early in 1901 certain disputes arose as to the true interpretation of an article in the Order which contained the immunities. The added areas, through a gentleman appointed by them, took proceedings before the Recorder at Quarter Sessions to quash general district rate No. 6. The primary object of the proceedings was to obtain a judicial interpretation of the article in the Order, but the added areas, to ensure their obtaining the costs of the proceedings, included all possible grounds of appeal; one of which was the inclusion in the rate of certain overdrafts at the bank over six months old and of interest thereon.

Their leading counsel, in opening the proceedings before the Recorder, distinctly stated that his clients had no intention of preventing the bank being paid, but that for the purposes of the appeal the point they had taken was fatal to the rate. The Recorder, in quashing the rate, with costs (in November, 1901), gave an interpretation of the article in the Order, saying, in his considered judgment, that it was not suggested that the liabilities of the Corporation, however incurred, were not to be met.

At the time of the added areas taking proceedings to quash the rate, and also in November, 1901, the Corporation had a large overdraft at its bankers, in respect of £135,000, of which it held a Consent Order of the Local Government Board to issue stock, but it refrained from doing so, as the money market was unfavourable. The rest of the overdraft was composed largely of excess expenditure in respect of works which had been sanctioned by the Local Government Board. Early in February, 1902, the Corporation issued stock under the Consent Order, which was subscribed many times over on the day of issue. The nett proceeds of this issue were applied in reduction of the overdraft. The Corporation appealed against the decision of the Recorder, and the appeal was heard in the King's Bench Division in July, 1902, when the Recorder's judgment was affirmed, with costs. In November, 1902, the Local Government Board held a local inquiry by two of its inspectors into the subject-matter of the overdraft. The inquiry lasted three days, and the Local Government Board sanctioned, with a few trifling exceptions, the whole of the sum which then remained overdrawn.

The outstanding balance was afterwards paid. If it had not been paid the bank could have closed the account and sued the Corporation on the overdraft. The bank has never had the slightest uneasiness in regard to the matter; it has never lost anything.

L.C.C. AND SCHOLARSHIPS.

A Big Reform. Four Times the Number of Scholarships Proposed to be Offered. The New Conditions. Maintenance Allowances to be Separated from Free Education. A New Board of Examiners. The Method of Selection and "Local Committees." The Ultimate Annual Expenditure to be £275,000. An Attempt to Solve the Problem of How to Obtain Pupil Teachers.

ONE of the results of the passing of the Education Acts of 1902 and 1903 has been the recognition by many of the local education authorities of the new possibilities of the extension of scholarships, bursaries, and exhibitions to capable children, in order that the educational ladder may be brought within the reach of the poorest child in the public elementary school.

Schemes of other Authorities.

We have on several occasions in these columns, had the pleasure of notifying our readers of the efforts which have been made by many of the new education authorities in the direction of facilities for the children in the people's schools, to obtain the best education with the minimum of expense.

Prominent among these may be mentioned Manchester, Leeds, Salford, Sheffield, Gloucester, Nottinghamshire, Staffordshire, and Middlesex, and now we understand that the Education Committee of the London County Council is considering the details of a revised scheme of scholarships which, when matured, will involve an annual expeuditure of something like £275,000.

The Problem in London.

London, with its perplexing peculiarities and perennial problems, has always required a kind of imperial treatment for the successful solution of municipal difficulties. It is not wonderful, therefore, that an investigation into the present system of awarding scholarships should have produced a huge scheme of about 3,000 scholarships per annum.

For the last eleven years the metropolis has enjoyed the benefits of a well-devised system of scholarships and exhibitions, which, under the *ægis* of the late Technical Education Board, attained much success and well-deserved appreciation.

In the early days of the late Board the opportunities which existed for the clever scholars of the working classes to get on were few and far between.

A few scholarships were offered by certain endowed schemes and one or two of the City companies, but the want of the necessary advertisement precluded any use of the opportunities which the possession of the bursaries would have given. In addition, there were many insufferable limitations surrounding some of these awards, such as a poverty test, residential requirements, attendance at Sunday school, and the small financial value. All of these operated against the poor man's child of capacity.

When the Technical Education Board took up the matter, however, it became simply a question of time. As a consequence, at the time when educational control passed into the hands of the London County Council, the Technical Education Board retired, leaving behind it over 3,000 of its scholars actually holding awards at various schools and institutions.

Now, the Education Committee of the premier authority has gone one better. It has decided to continue the best features of the system which it inherited, and for the present has confined its suggestions to the three grades of county scholarships, viz., junior, intermediate, and senior.

Three Fundamental Principles.

A lengthy and valuable report has been under consideration by the committee this week, and three principles are put forth as having guided those who are responsible for the new departure. First, the total number of scholars must be largely increased, this being primarily due to the fact that pupil teachers under 16 may no longer be employed and paid, and consequently the cost of their maintenance and education up to that age must be borne by the help of scholarships. Secondly, as children are compelled to attend school nntil they reach 14 years of age, it is obviously unnecessary to provide them with any maintenance allowances up to that time. The maintenance grant will, therefore, be dissociated from the free education, and only paid in such and so many cases that circumstances require. Thirdly, it is felt that the method of selection of the scholars must be altered. The present system of examination is, naturally enough, the cause of criticism, and is certainly productive of some evils. The decision, therefore, to proceed, at any rate, with the junior county scholars, by the process of part selection, would appear thoroughly rational and up to date.

Selection cum Examination.

It is also proposed to establish a special board of examiners, who will select the scholars on (a) the recommendation of the head teachers, (b) the report of a local committee, to be formed of teachers of the primary and secondary schools in the districts, and (c) the results of a competitive examination. This last is, we are glad to see, to comprise but two subjects—arithmetic and English composition. Those candidates who reach a certain standard, determined by the examiners upon the abovementioned principles, will be accepted as successful.

The number of junior county scholarships proposed to be awarded for the first year is 2,600, and the age, instead of "under 13," is to be between 11 and 12. The number of intermediate scholarships is to be 100, and the limit of age is, instead of "under 16," to be from 15 to 17. This change is a wise deference to the new order of things in the training of young teachers, and it would appear that one of the main objects of the scheme is to endeavour to obtain enongh candidates for the teaching profession, for which there is a deplorable lack, especially of boy aspirants, in the metropolis.

The number of senior scholarships jumps from five to fifty, and these will, as before, carry free education (not exceeding £30 a year) at places of University rank, together with a maintenance grant not exceeding £60 a year.

The junior scholars must attend approved secondary schools; the intermediate scholars, suitable schools and nniversity or technical colleges, and the senior, institntions of the highest grade in the particular department of education chosen.

Estimated cost of	1905-6.	1906-7.	1907-8.	1908-9.	1909-10.	1910-11 and afterwards.
	£	£	£	£	£	£
(a) New	143,603	184,117	214,914	240,345	267,330	275,200
(b) Old	101,000	101,000	101,000	101,000	101,000	101,000
(c) Increase	42,603	83,117	113,914	139,345	166,330	174,200
Deduct saving through transfer from primary and secondary schools ...	8,000	19,250	29,250	32,500	32,500	32,500
Nett increase	34,603	63,867	84,664	106,845	133,830	141,700

£275,000 a Year.

The ultimate annual cost of the whole scheme, if adopted as it stands, is to be as follows:—

Junior scholarships	£242,500
Intermediate scholarships	12,500
Senior scholarships	10,200
Examination and other expenses ...	10,000
Total	£275,200

No provision is made in this huge sum for those excellent art, evening, domestic training, gardening, and other scholarships which at the present time run to about £10,000 a year.

It should also be stated that it will take five years for the maximum expenditure to be reached, and also that the additional expense of providing sufficient secondary school accommodation has been allowed for in the fignres given above.

A Nett Yearly Increase of £141,000.

It is interesting to compare the probable cost for each of the five years, as also the sums that would be required were the present system to be adhered to. The table at the foot of the preceding columns shows this clearly:—

We think the Education Committee is to be congratulated upon a statesmanlike scheme such as this; and when it is remembered that the cost of primary education under the old authority was about £3,000,000 a year, the annual expenditure of £275,000 for scholarships can hardly be considered excessive.

L.C.C. AND HOUSING.

To the Editor.

SIR,—Referring to your comments upon my letter regarding the rents of London County Council houses at Tottenham, I would submit that, although your explanations account for something, yet they are by no means satisfactory, because if we admit them to be sufficient, then we imply that a local authority cannot build at a price low enough for the pockets of the class for whom it professes to specially cater.

But it is because I am convinced that municipal bodies can and shonld provide dwellings at a reasonable rent, notwithstanding sinking funds and other requirements, that I am desirous of drawing public attention to the case in question. My own opinion is, that 13s. 9d. is far too much to charge for a five-roomed cottage in snch a locality as Lordship Lane, Tottenham. It is beyond the means of the average artisan, and is far more than is charged by other landlords. If honses are built at such a cost as to nccessitate such a rent, then there will be a tremendous deficit on account of empties. This deficit will involve a reduction of rents, and the end will be that the houses will be let at a cost insufficient to cover charges. Moreover, it is not necessary that such a rent should be involved. It ought to be possible to build a five-roomed honse, including all expenses of drains, roads, &c., at a cost of about £60 per room. This would make the outlay per house £300—and the necessary rent 10s. 6d. per week. This is a reasonable charge, and could be obtained.

I arrive at the rent as follows:—

	£	s.	d.
Interest and sinking fund on £300 ...	12	0	0
Ground Rent...	1	18	0
Repairs	3	16	0
Rates, 10s. in £ on £17	8	10	0
Management, insurance, &c.	1	2	0
Per annum	27	6	0

Equal to 10s. 6d. per week.

I sincerely hope that before more contracts are entered into for the Tottenham Estate, the L.C.C. will consider some revision of its plans, so that something more practical than the existing design may be adopted, otherwise the houses will not let, and the loss on empties will involve financial failure and consequent discredit to municipal effort.

Yours very truly,
S. H. HALFORD.

32, Fore Street, Edmonton.
Nov. 26, 1904.

[See "Notes and Comments."—ED.]

MUNICIPAL TRADING RELIEVES RATES.

Returns That Show the Ingredients of Which the Ratepayers' Burden is Composed, and How it is Lessened by Profits from Trading Enterprises and other Corporation Estates. Remarkable Figures that Refute Interested Criticisms.

WE publish this week the annual returns compiled by Mr. James Carter, the Borough Treasurer of Preston, whose activities are of such great value to municipal reformers. The first table gives particulars of the rates levied in various towns during the current year, and the second shows in detail how these rates are relieved by profits from trading enterprises and other estates:—

Name of Town.	Population.	Rateable value.	Poor, including overseers' expenses and cemetery rates.	Borough.	Watch.	Education.	Free library and museum.	Baths.	General district, including lighting rates.	County.	Any other rate.	Total.	Profits and rents. (See note.)
		£	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Accrington	44,500	176,881	0 9 1/10	0 6 5/10	0 3 7/10	0 10	0 1	0 0 3/10	3 8	0 9 4/10	—	7 0	0 1 1/2
Ashton-under-Lyne	45,000	179,018	1 2	1 2 1/4	0 3 1/4	0 5 1/2	0 1 1/2	0 2 1/2	3 8	0 9	—	8 0	0 2 1/16
Barrow-in-Furness	65,500	291,223	1 0	0 7 1/5	0 5	1 4	0 1	†	1 7 7/10	0 1 1/2	—	5 3	0 9 1/2
Bolton	175,744	768,006	1 5 1/2	1 5 1/10	0 4 3/5	1 2 1/5	0 1	0 0 3/10	2 4 7/10	†	—	7 0	1 1 1/5
Bath	49,318	322,521	1 2 3/4	0 5 1/2	0 4 1/2	0 9 1/4	0 1	†	3 4	†	—	6 3	0 9
Bacup	22,505	84,088	0 10 1/4	0 4 1/4	0 5	1 3 1/2	†	0 1	2 5 1/10	0 10	Waterworks deficiency 1 7 9/10	7 11	0 0 2/5
(c) Belfast	365,000	1,251,805	1 1	0 2	0 9	†	0 1 1/2	0 0 3/4	2 8	Parks rate, 2 1/4 / Technical, 1 / Health, 7 1/2		5 9	0 8
Brighouse	22,000	86,862	1 4	0 9	0 4	0 10	0 1	†	4 4	0 6	—	8 2	—
Birkenhead	114,814	606,465	1 0 1/2	0 * 3 3/4	*	0 11 3/4	0 1	†	4 0	†	—	6 5	0 3 1/5
Blackburn	130,000	527,793	1 0 3/4	1 1 3/4	0 4 1/2	1 0	0 1 1/4	0 0 1/2	3 9 1/4	†	—	7 6	—
Blackpool	55,000	461,384	0 4 1/2	0 10 13/20	0 2 3/10	0 7 3/4	0 0 1/5	†	2 9	Half-y'ar 0 4	—	5 3	0 9 3/4
Bootle	61,600	527,143	1 6 1/4	0 7 3/4	0 4	1 1	0 1	*	2* 7	†	—	6 3	—
Bradford	284,122	1,521,140	1 1	2 0 9/10	0 4 3/5	1 7 9/10	0 2	0 0 3/5	2 4	0 1 1/5	—	7 10	0 0 1/3
Burton-on-Trent	51,934	331,121	1 0	0 9 3/4	†	0 10 1/2	0 0 3/4	0 0 1/2	4 2 1/2	—	Burial 0 1	7 1	0 4 1/10
Brighton	126,286	893,424	1 7 3/10	0 5 7/10	†	1 3	0 3	0 0 7/10	3 10 3/10	†	—	7 6	0 2 1/4
Burnley	99,000	373,913	1 2	1 4	0 5	1 7	†	0 0 3/4	2 5 1/4	†	—	7 0	0 9
Bury	59,000	271,918	1 0	1 2 1/2	0 3 1/2	0 7	0 3	0 1	3 6	0 1	0 4	7 4	0 4
Bristol	356,647	1,727,676	1 5	0 4 1/2	0 4 3/4	1 0 3/4	0 1	0 0 3/4	3 9 1/4	†	—	7 2	0 3 3/4
Bournemouth	64,000	553,466	0 8 1/5	0 5 1/5	†	0 5 3/10	0 0 9/10	†	3 3	†	0 0 1/5	5 0	0 0 3/4
Carlisle	46,500	222,789	0 11 1/2	0 6	†	1 2	0 1 1/2	†	3 0	0 3	—	6 0	1 8
Cheltenham	50,000	303,473	1 3 3/4	0 6 1/8	0 3	0 6 1/2	0 1	0 1 1/8	3 8 1/2	0 7	—	7 1	—
Chester	38,309	212,515	1 11	2* 5 3/8	0 4	*	0 1	0 1 7/8	1 3	†	—	6 2	0 4 1/2
Coventry	73,000	301,390	1 0 1/2	0 2 3/4	0 5	1 2	0 1	0 1 3/4	4 2	†	—	7 3	0 6
Croydon	144,000	1,014,487	0 11 3/4	0 10	†	1 0	0 1	†	3 8	†	Police 0 5 1/4	7 0	—
Cardiff	176,313	1,084,490	1 2 1/2	0 8	0 6 1/2	1 2 3/4	0 1 1/2	0 0 3/8	3 5 5/8	†	—	7 3	0 2
Darlington	48,000	221,797	0 11 7/10	0 7 9/16	†	1 3 5/10	0 1	0 1	1 10	0 7 3/10	—	5 6	1 7 1/4
Darwen	40,000	152,752	1 1 1/2	0 11	†	0 11 1/5	0 1 7/10	†	3 8	0 10 1/2	—	7 8	0 1 1/4
Derby	120,449	552,086	1 5 1/4	0 * 9 1/4	*	1 4	0 1 1/2	*	4* 4	†	—	8 0	0 9
Devonport	75,334	289,854	1 0	1 * 1 1/4	*	1 4 3/4	0 1	†	1 7	†	Street rate 1 11 / Park	7 1	0 1 1/2
Dewsbury	28,750	136,278	0 11 1/4	0 9 3/4	0 5 3/4	1 1 1/2	0 1	0 2	3 6 1/2	0 7	0 6 1/2	8 1	1 1
Dudley	50,000	150,016	2 0 1/2	*	0* 4 1/2	1 1 1/2	0* 1	0 1 1/4	4 4 3/4	†	—	8 1 1/2	0 2
Eastbourne	45,750	393,732	0 9	0 5 3/8	0 2 3/4	0 4	0 0 5/8	†	3 2	0 8 1/2	Bands 0 1	5 9	0 0 1/2
East Ham	115,000	460,235	1 10 1/2	†	0 5	2 4	0 1 1/4	†	3 10 3/4	0 10 1/2	—	9 6	—
Exeter	48,000	250,500	1 2 1/2	0 10	†	1 1 1/2	0 1	†	3 4	†	—	6 7	0 3
Gateshead	118,067	421,768	1 4	0 10	†	1 6	0 1	†	3 0	†	Burial 0 3	7 0	—
Halifax	107,000	491,640	1 6	0 3 1/4	0 4 1/4	2 0 1/2	0 1	†	4 9	†	—	9 0	0 8 1/2
Huddersfield	95,047	474,172	0 10	1 9 7/10	0 5 3/8	1 5 3/4	0 1	0 0 7/10	3 5 1/2	†	—	8 1 3/4	—
Heywood	26,000	105,628	1 10	0 7 1/4	0 3	0 11	0 1	0 0 3/4	3 11	†	—	7 8	0 3
Hastings	66,500	461,670	1 4 1/2	0 9 1/2	†	1 4	†	†	3 4	—	Borough extension 0 8	7 6	0 5
Islington	341,044	1,941,654	2 2	†	0 5 1/5	1 4 1/2	†	0 1 3/5	1 8 3/5	1 6 1/10	—	7 4	0 3 2/5
Kensington	178,500	2,295,703	1 7 3/5	†	0 5 1/4	1 4 3/4	0 0 1/2	0 0 3/5	1 3 1/2	1 6	Equalisation Charge 0 2	6 6	—
King's Lynn	20,288	83,127	2 5	0 8	0 5	0 5	0 1 1/2	0 0 1/10	3 2 9/10	0 6	Dock 0 5	8 2 1/2	0 9 1/2
Kingston-upon-Hull	253,865	1,152,837	1 4	0 2 3/4	0 4 1/2	1 1 3/4	0 1	†	3 2	—	Highway 0 10	7 2	0 10 1/4
Lancaster	42,570	204,932	0 8 1/4	0 2 1/2	†	0 7	0 1	†	2 6	0 5 1/4	—	4 6	0 8 1/2
Leamington	27,000	187,835	1 0 1/2	0 1 1/5	0 3 1/5	1 0	0 1 1/2	0 2 3/10	3 2 7/10	0 8	Band 0 1	6 9	—
Leicester	224,189	1,051,640	1 9	*	†	1 4	*	*	4* 2	†	—	7 3	0 8 1/2
Leeds	450,142	1,982,232	1 4 1/2	†	†	1 5 1/2	†	0 0 7/10	5 1 3/10	†	—	8 0	1 0
Liverpool	723,430	4,416,061	1 5	0 5	0 1	1 3 1/2	0 1 1/2	†	3 6 3/4	†	0 5 1/2	7 4 1/4	1 0
Lincoln	52,000	214,888	1 10 1/2	0 5	†	0 9 1/2	0 1	†	4 3	†	—	7 5	0 6
Macclesfield	34,635	108,066	2 5	0 11 1/2	0 4 3/4	0 9	0 0 3/4	0 1	2 10	†	—	7 6	1 4
Manchester	557,938	3,629,003	0 11 2/5	3 10 2/5	0 4 9/10	1 7 2/5	0 1 9/10	0 1 4/5	†	Ship Canal 5 1/2 / Water Rate 1 (b)		7 8 1/2	0 9
Middlesbrough	99,000	382,854	1 8	0 11 3/4	0 4 3/8	1 6	0 1	†	3 5	0 0 7/8	—	8 1	0 1 1/4
Newcastle	225,362	1,432,803	1 0	0 1 1/2	†	0 11	0 1 1/2	†	1 10 1/2	†	Improvement 1 0 1/2 / Parks 0 2	5 3	—
Northampton	87,021	362,438	2 1 3/5	0 5	0 4	1 6	0 1	†	3 11	†	—	8 4 3/5	0 5
Norwich	113,000	432,625	2 3 1/2	0 5 3/4	0 4 3/4	1 11	0 1	†	4 5	†	—	9 7	0 3
Nottingham	248.819	1,167,687	1 8	†	0 8	1 4	0 1	0 0 1/4	3 6 3/4	†	—	7 4	1 1 1/2
Nelson	36,654	130,213	1 5	0 3 1/2	0 4	1 2	0 1	†	2 6	0 8 1/2	—	6 6	0 9
Oldham	139,497	467,825	1 2 3/4	0 8	0 4 3/4	1 8 1/2	0 2 3/4	0 2	3 11 1/4	†	—	8 4	0 6 3/4
Oxford	50,000	378,000	0 9	†	†	*	*	†	3* 7	†	—	4 4	0 9 1/2
Plymouth	113,020	522,021	1 2 1/2	0 6	0 4	0 11 1/2	0 1	†	4 4	†	—	7 5	0 4
Portsmouth	200,000	911,884	1 8	0 7	0 4	1 2	0 1	†	2 6	†	—	6 4	0 1 1/5
Preston	115,055	417.906	1 2	0 9 3/4	0 4 1/2	0 6 1/2	0 2	0 0 3/4	3 9 1/4	†	Ribble 1 11 1/2	8 10	0 8
Reading	76,678	393,019	1 1	0 4 3/4	0 3 1/2	1 10 3/4	0 1	†	4 2	†	—	7 11	0 1 3/5
Rochdale	85,601	383,460	1 8 3/4	0 9 1/4	0 3 1/2	1 8	0 2	0 0 3/4	2 9 1/4	W't'rworks d'ficiency 4 / Tramways do. 2 1/2		8 0	0 10
Rotherham	59,000	195,693	1 5 5/10	1 1	0 5 9/10	1 8 2/5	0 1	0 2	4 0	0 2	—	9 2	0 4
Salford	228,983	1,012,085	1 9	1 5 1/2	0 7 3/4	1 5 3/4	0 1 3/4	0 1 1/2	2 3	†	—	7 10	0 11 1/2
Southampton	112,500	562,737	2 4 1/2	0 4 3/4	0 4	1 7	0 1	0 0 3/4	3 8 1/2	†	Artisans' Dwellings 0 1 1/2	8 8	0 2 1/2
Stafford	22,532	81,632	1 7 3/4	0 10	0 2 1/2	0 0 9/10	0 0 9/10	0 2 7/10	4 4	1 1 1/4	—	8 6	0 10 3/5
Stockport	97,008	420,514	1 3	0 5 1/2	0 3 3/4	0 9 1/2	0 1	0 1 1/4	3 9	†	Improvement Rate 0 4	7 0	0 8 3/4
Stockton-on-Tees	54,000	222,530	0 10 1/2	†	†	1 5	†	†	3 5	0 7 3/4	Burial Board 0 2	6 6	0 10
Sunderland	151,000	662,751	1 9 1/4	0 4	0 3 1/4	1 0	0 1	0 0 1/2	3 4	†	—	6 10	0 1 1/2
Southport	50,500	364,306	0 9 3/4	0 1 3/4	†	0 3 1/2	0 0 1/4	†	2 10 3/4	0 6 1/4	Water Board 0 5 3/4	5 3	0 10 3/4
South Shields	107,334	412,974	1 5 1/2	0 3 1/4	0 4 1/4	1 1	0 1	†	3 6	†	—	6 9	0 1 1/4
St. Helens	88,740	362,197	1 1	2* 6 1/2	0 3 1/4	0 7	0 1 1/4	0 1	*	†	Highway Rate 0 10	5 6	0 4 3/4

Name of Town.	Population.	Rateable Value.	Poor, including overseers's expenses and cemetery rates.	Borough	Watch.	Education.	Free library and museum.	Baths.	General district, including lighting rates.	County.	Any other rate.	Total.	Profits. and rents. (See note.)
		£	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Swansea	100,000	445,602	1 7	0 10	†	1 10	0 1	†	4 4	†	—	8 8	0 8
Stalybridge ...	28,000	105,548	1 2	0 $2\frac{7}{10}$	0 5	0 $4\frac{1}{5}$	0 1	0 $0\frac{2}{5}$	4 $0\frac{7}{10}$	0 6	—	6 10	0 $4\frac{1}{10}$
Tunbridge Wells ...	35,000	284,000	1 2	0 3	0 5	0 7	†	0 $1\frac{1}{2}$	3 $3\frac{1}{2}$	0 6	—	6 4	—
Tynemouth ...	51,366	231,530	1 1	0 10	†	1 0	0 1	†	3 10	0 3	—	7 1	—
											Water Rate aid		
Wakefield	42,365	203,364	1 7	0 $9\frac{1}{2}$	0 $4\frac{1}{4}$	0 10	0 $0\frac{1}{4}$	0 $0\frac{1}{4}$	4 $2\frac{3}{4}$	†	1 2	9 0	—
Warrington ..	67,000	251,203	1 $2\frac{1}{2}$	1 $5\frac{1}{10}$	0 $5\frac{1}{5}$	0 $10\frac{2}{5}$	0 $1\frac{1}{2}$	0 $0\frac{9}{10}$	3 8	†	—	7 10	1 $0\frac{1}{5}$
West Bromwich ...	65,175	222,425	1 $4\frac{1}{4}$	1* $3\frac{1}{2}$	*	1 $3\frac{1}{4}$	0 1	*	3* 6	†	—	7 6	0 2
West Ham	288,424	1,275,206	2 $1\frac{1}{2}$	0 $6\frac{1}{4}$	0 $5\frac{1}{2}$	2 $8\frac{1}{4}$	0 1	*	4* 0	†	—	9 10	0 $1\frac{3}{4}$
West Hartlepool ...	66,700	259,500	1 $7\frac{11}{10}$	0 $7\frac{1}{10}$	0 $2\frac{5}{10}$	1 $6\frac{9}{10}$	0 1	†	3 $3\frac{9}{10}$	†	—	7 5	0 $0\frac{7}{10}$
Wigan	63,500	242,117	1* 0	1 2	*	0 8	0 2	†	3 2	†	—	6 2	1 6
											Artisans' Dwellings		
Wolverhampton ...	98,268	381,680	2 $10\frac{1}{2}$	0 5	0 $7\frac{1}{4}$	1 $9\frac{1}{2}$	0 $1\frac{3}{4}$	0 $0\frac{1}{2}$	3 10	†	0 $4\frac{1}{2}$	10 1	0 $3\frac{1}{2}$
Widnes	29,000	159,187	1 2	0 $7\frac{3}{4}$	†	1 $1\frac{1}{4}$	0 1	†	2 10	0 6	—	6 4	0 $3\frac{1}{4}$
											Equalisation charge		
Westminster ...	‖183,011	5,595,199	1 $6\frac{3}{4}$	0 $2\frac{1}{4}$	0 5	1 $4\frac{1}{4}$	0 $0\frac{1}{2}$	0 $0\frac{1}{2}$	1 $2\frac{1}{4}$	1 6	0 $4\frac{1}{2}$	6 8	—
York	81,268	391,153	1 11	0 5	0 3	1 $3\frac{1}{2}$	0 1	0 $0\frac{1}{2}$	3 $7\frac{1}{2}$	†	Bridge 0 $0\frac{1}{2}$	7 8	0 $2\frac{1}{2}$

† No rate levied for this purpose. * Includes other rates marked with the same sign.
‖ Approximate average of rates levied in various districts. (b) Payable by owner of property.
The figures in the last column show the amount in the £ by which the rates have been reduced in consequence of rents of property and profits transferred from gas, water, markets, &c.

HOW RATES ARE REDUCED.

Town.	Markets.	Gas.	Water.	Electric light.	Tramways.	Estates owned.	Other sources.	Total Profits.	Amount in the £ by which rates reduced.
	£	£	£	£	£	£	£	£	s. d.
Accrington	500	—	—	—	150	28	60	738	0 $1\frac{1}{5}$
Ashton-under-Lyne ...	1,118	—	760	—	—	—	—	1,878	0 $2\frac{13}{16}$
Barrow-in-Furness ...	—	*9,000	*	—	—	1,000	300	10,300	0 $9\frac{2}{5}$
Bolton	2,000	16,380	10,000	4,500	2,740	1,900	—	37,520	1 $1\frac{1}{5}$
Bath	—	—	1,000	—	—	9,500	500	11,000	0 9
Bacup	119	—	—	—	—	—	14	133	0 $0\frac{2}{5}$
Birkenhead	—	6,000	3,000	—	—	—	—	9,000	0 $3\frac{1}{5}$
Belfast	4,950	21,580	—	—	3,500	—	—	35,030	0 8
Blackburn	3,700	—	—	—	−6,000	—	—	—	—
Blackpool	—	14,907	—	2,000	500	—	—	17,407	0 $9\frac{3}{4}$
Bradford	1,774	—	—	—	—	—	—	1,774	0 $0\frac{1}{5}$
Brighton	400	—	6,000	—	—	—	1,200	7,600	0 $2\frac{1}{4}$
Burton-on-Trent ...	112	5,000	—	—	—	—	—	5,112	0 $4\frac{1}{16}$
Burnley	550	7,100	—	4,100	—	—	300	12,050	0 9
Bury	276	2,500	—	300	—	—	710	3,786	0 4
Bristol	2,009	—	—	—	—	24,225	—	26.234	0 $3\frac{3}{4}$
Bournemouth... ...	—	—	—	—	—	—	1,500	1,500	0 $0\frac{3}{4}$
Carlisle	—	6,969	6,350	—	—	2,101	1,054	16.474	1 8
Chester...	1,280	—	—	—	—	2,683	—	3,963	0 $4\frac{1}{2}$
Coventry	—	2,000	3,500	—	—	1,000	—	6,500	0 6
Cardiff	—	—	—	3,000	—	5,104	—	8,104	0 2
Darlington	686	8,500	6,300	—	—	—	—	15.486	1 $7\frac{3}{4}$
Darwen...	—	967	—	—	—	—	—	967	0 $1\frac{3}{4}$
Derby	2,600	—	—	—	—	9,800	5,300	17,700	0 9
Dewsbury	—	5,376	—	1,000	—	—	—	6,376	1 1
Devonport	—	—	—	—	584	—	962	1,546	0 $1\frac{1}{2}$
Dudley	1,040	—	—	—	—	—	—	1,040	0 2
Eastbourne	—	—	—	—	—	1,156	—	1,156	0 $0\frac{1}{5}$
Exeter	350	—	200	—	—	1,650	800	3,000	0 3
Halifax	112	7,900	—	2,500	—	—	4,929	15,441	0 $8\frac{1}{2}$
Hastings	—	—	3,034	1,500	—	—	7,060	8,594	0 5
Heywood	—	1,200	—	—	—	—	—	1,200	0 3
Kings Lynn	633	—	—	—	—	2,214	433	3,280	0 $9\frac{1}{2}$
Kingston-upon-Hull .	3,119	—	5,000	—	11,500	15,900	11,910	47,429	0 $10\frac{1}{4}$
Lancaster	—	—	4,133	—	—	2,449	—	6,582	0 $8\frac{1}{2}$
Leicester	2,317	25,000	—	—	—	6,048	9,730	43,095	0 $8\frac{1}{2}$
Leeds	—	30.000	15,000	—	55,000	—	—	100,000	1 0
Liverpool	16,337	—	—	10,298	32,081	99,697	—	158,413	1 0
Lincoln	—	2,500	750	—	—	2,200	650	6,100	0 6
Macclesfield	—	5,005	624	—	—	144	—	5,773	1 4
Manchester	14,000	60,000	—	—	51,000	—	—	125,000	0 9
Middlesbrough ...	159	—	—	—	—	—	1,250	1,409	0 $1\frac{1}{4}$
Northampton... ...	1,907	—	2,772	—	—	450	1,126	6,255	0 5
Norwich	2,161	—	—	—	—	2,331	—	4,492	0 3
Nottingham	6,071	20,683	—	6,000	13,000	11,861	—	57,615	1 $1\frac{1}{2}$
Nelson	—	4,154	655	—	—	—	—	4,809	0 9
Oldham	2,612	9,130	—	—	—	—	1,683	13,425	0 $6\frac{3}{4}$
Oxford	1,673	—	5,715	—	—	4,950	1,143	13,481	0 $9\frac{1}{2}$
Plymouth	945	—	3,576	—	—	3,731	—	8,252	0 4
Portsmouth	400	—	—	—	—	300	3,500	4,200	0 $1\frac{1}{5}$
Preston	3,980	—	—	—	—	6,456	1,664	12,100	0 8
Reading	698	—	400	—	—	1,263	—	2,361	0 $1\frac{3}{5}$
Rochdale	—	13,000	—	—	—	—	—	13,000	0 10
‖Rotherham	—	2,800	—	—	—	—	—	2,800	0 4
Salford	—	20,000	2,800	4,500	13,000	—	—	40,300	0 $11\frac{1}{2}$
Southampton... ...	253	—	—	—	—	412	4,662	5,327	0 $2\frac{1}{2}$
Stafford	100	1,550	600	—	—	1,081	—	3,331	0 $10\frac{3}{5}$
Stockport	—	11,200	—	—	—	375	1,675	13,250	0 $8\frac{3}{4}$
Stockton-on-Tees ...	1,600	7,200	—	—	—	—	—	8,800	0 10
Sunderland	—	—	—	—	—	4,014	—	4,014	0 $1\frac{1}{2}$
Southport	930	11,250	—	2,750	—	—	—	14,930	0 $10\frac{3}{4}$
South Shields	134	—	—	300	204	888	240	1,766	0 $1\frac{1}{4}$
St. Helens	1,357	5,000	—	—	—	—	—	6,357	0 $4\frac{3}{4}$
Swansea..	2,021	—	—	744	—	10,699	—	13,464	0 8
Stalybridge	44	1,650	—	—	—	—	57	1,751	0 $4\frac{1}{10}$
Warrington	2,258	8,000	—	—	—	2,000	—	12,258	1 $0\frac{1}{5}$
West Ham	—	—	—	8,000	—	—	—	8,000	0 $1\frac{3}{4}$
West Hartlepool ...	494	—	—	—	—	30	100	624	0 $0\frac{7}{10}$
West Bromwich ...	—	1,340	—	—	—	—	—	1,340	0 2
Wigan	1,500	13,000	—	—	3,595	—	—	18,095	1 6
Widnes	—	1,637	—	—	—	—	—	1,637	0 $3\frac{1}{4}$
York	2,400	—	—	—	—	1,800	—	4,200	0 $2\frac{1}{2}$

* Includes profits marked with same sign. ‖ Public lighting.

THE City Guardians have before them an application from the Shoreditch Guardians asking if they have a workhouse for sale, and, if not, whether the board can offer them accommodation.

THE Strand Guardians have not received a single application for the post of third assistant schoolmaster at the schools at Edmonton, notwithstanding the post has been extensively advertised.

PHYSICAL DETERIORATION.

THE chief business transacted at a meeting on Wednesday of the executive council of the County Councils Association, held at the Westminster Guildhall, was consideration of the report of the Education Committee. This committee reported that it had considered certain of the recommendations made by the Inter-Departmental Committee on physical deterioration. It was not prepared to endorse the recommendation that school attendance in rural districts should not be compulsory till the age of six, or possibly seven, and should be discouraged, if not absolutely prohibited, under five. It, however, considered that the local authority should not be required to provide accommodation for children under the latter age.

In the opinion of the committee the proposals as to the establishment of special schools for retarded children and as to the feeding of underfed children in elementary schools, even if desirable, were not practicable, except possibly in the larger towns. As to the introduction of the teaching of cookery into schools, the Council adopted the committee's view that this could only be secured by providing efficient instruction in that subject in all training colleges for women teachers. It also approved of the course of physical exercises recommended by the Inter-Departmental Committee.

MUNICIPAL PROFITS AND THE UNEMPLOYED.

IN Nottingham there are about 3,000 men out of employment, the building trade being principally affected. The City Council on Monday decided to put in hand at once certain public works (for which Government sanction has been already obtained), at an estimated expenditure of about £15,000, and to supplement this by grants in deserving cases to workmen resident in the town, the money for the purpose being drawn from the profits of the gas undertaking.

AT last week's meeting of the Metropolitan Water Board, Mr. Walter Moon, formerly in the Offices of the New River Company, was appointed law clerk, at a salary of £500 a year. It was reported that 130 applications for the position had been received.

THE Norwich Education Committee spent some time at a meeting with regard to the re-naming of the Duke Street Higher Grade School. The vice chairman stated that it was found by experience that the name "Higher Grade School" did not attract teachers from a distance, who did not know the character of the school, anything like the name, "Secondary School" would do. It was decided that the school be called "The Duke Street Municipal Secondary School."

NOTES AND ANSWERS.

Powers of Mayors at Noisy Council Meetings. The Application of the Weights and Measures Acts to Asylums. Ratepayers and Rights of Inspection of Minutes. Compensation for Loss of Office Under the Local Government Act.

*** Queries intended for this column should be addressed to the "Legal Correspondent," MUNICIPAL JOURNAL, 12, Salisbury Square, E.C. They should be written on one side of the paper only, and be signed by a nom de plume or initials, the real name and address of the correspondent being written on the back of the paper.*

553.—ACCOUNTS—Method of Accounting for General District Rate.—A correspondent, who is the accountant of an urban council, writes in reference to the query and reply of last week under the above heading, and sends us an alternative arrangement:—

Dr.—General district rate *collection* account, with amount of rate.

Dr.—Collector with amounts collected by him.

Cr.—General district rate collection account therewith.

Dr.—Treasurer with amounts received by him from collector.

Cr.—Collector therewith.

At close of rate, deduct the amount of irrecoverables from amount of rate shewn in general district rate collection account; and

Cr.—General district rate account, with actual produce of rate.

Any recoverable arrears would be shown in the general district rate collection account.

Any balance remaining in collector's hands at end of year would, of course, be shown in collector's account.

It may be argued that it is not strictly correct to *deduct* the irrecoverables from the amount of the rate, but, as the general district rate account is invariably written up at the close of the year, it need not be any drawback: and, in practice, it will be found much better to credit the general district rate account with the actual product of the rate levied during the year in one amount, rather than show on the credit side the gross rate, and on the debit side the irrecoverables.

There is one difficulty which would occur in the method suggested by your correspondent, and that is, to show clearly in the collector's account any balance he may have on hand at the end of the year.

We are much indebted to our correspondent for the above, and also for an exemplification of his method duly received (for which we have no space). We do not propose to enter into the question of accounting further, except to point out, in reference to the last paragraph, that though the collector's account in the ledger will not show the actual balance he may have, under the system of accounts referred to in query No. 536, but only the balance due from the collector—including cash on hand and recoverable arrears—the actual cash balance will readily be found from the collectiug and deposit account which he is required to keep by the Local Government Board's Order of 1880.

554.—WEIGHTS AND MEASURES ACTS—Application of Acts of Scale and Measures in an Asylum.—(1) Will you kindly inform me if an inspector of weights and measures has power to inspect and adjust the scales and weights in an asylum or other public institution used for weighing rations issued to the staff, and provisions sold at contract prices to officers residing on the estate?

(2) Also, with reference to the weighbridge, can he legally examine the same? Old stores sold would be weighed out thereon. Would this be trading within the meaning of Sec. 19 of the 1878 Act?—"NEMO."

Sec. 48 of the Weights and Measures Act, 1878, provides that every inspector under the Weights and Measures Act, 1878, authorised in writing under the hand of a J.P., may at all reasonable times inspect the weights, measures, scales, &c., within his jurisdiction which are used or are on "any premises for use for trade." This provision appears to authorise the inspection, &c., of the weighbridge at the asylum, as this is clearly used for trading purposes. "Trade" is defined by Sec. 19 of the Act as including "every contract, bargain, sale, or dealing, made or had in the United Kingdom, for any work, goods, wares, or merchandise, or other thing which has been, is to be done, sold, delivered, carried, or agreed for, by weight or measure. . . . ." It seems to us that the two sections, when construed together may be regarded as authorising the inspector to inspect, &c., the scales and weights in the asylum. The selling of provisions to the staff would appear to come under the above definition, and, in any case, the words of Sec. 48 (which replaced an earlier and narrower provision) are purposely very wide in their scope. It seems to us, however, to be undesirable and unnecessary for an inspector to insist on this right in respect of the inspection of the asylum scales and measures, which can only be regarded as included in his jurisdiction by a somewhat extensive interpretation of the scope of the statute.

555.—TRAMWAY UNDERTAKING PROMOTED BY ELECTRIC POWER COMPANY?—What is a valid objection to such a scheme? (1) In the event of a private company applying for a Provisional Order for the introduction of tramways, what time may elapse from the date of the first notice and the lodging of objections?

(2) Would the appointment of a town council committee to consider the advisability of a municipal scheme be a valid objection to the granting of a Provisional Order?—"TOWN COUNCILLOR."

(1) Elaborate regulations have been promulgated by Parliament and by the Board of Trade as to the notices to be given of a proposed tramway scheme, and the procedure necessary to place a proposal, with due publicity and warning to all interests affected, before the legislature. In October or November of the year preceding the session when the application will come before Parliament, the undertakers must publish notice of their proposals by advertisements in the prescribed form. In the same months street notices are to be posted for 14 consecutive days. On or before the 30th November certain documents must be formally deposited. By the 15th December the promoters must serve notice on all local authorities affected. Any local or road authority, or other body or person, desiring to have amendments inserted in the Provisional Order authorising the proposed undertaking must deliver the same to the Parliamentary agents and to the Board of Trade not later than the 8th February. This last-mentioned date is probably the one in which our correspondent is interested.

(2) The appointment of such a committee would not have any effect as an objection, even if that committee passed resolutions against the proposed undertaking. Objections to be valid must be formally lodged in accordance with the statutory rules, and should come from the council as a whole, and not from a committee thereof.

556.—DISTURBANCE AT MEETINGS OF TOWN COUNCIL—Powers of the Mayor. Admission of Strangers.—I shall be obliged for any advice as to the power of the mayor or other presiding chairman of a meeting of the Town Council to deal with a disturbance caused by ratepayers present, not being members of the council. Recently we have had somewhat heated discussions in the council, and the attendance of strangers has been unusually large. They take sides, and make a disturbance when speeches are delivered on proposals submitted contrary to the popular view. Can the mayor exclude them?—"COUNCILLOR."

The Council is not bound to hold its meetings in public, and the admission of ratepayers, though a privilege commonly granted, remains a privilege, and may be withdrawn at any time. If withdrawn, it should be under a resolution of the Council. The mayor or presiding chairman cannot, we think, lawfully exclude all members of the public in general from the meetings of the council, though on a particular occasion he may do so where this course seems necessary to prevent a disturbance. If a disturbance occurs, the mayor, as chairman, can exercise all powers reasonably necessary to maintain order, even to the extent of ordering the withdrawal of the strangers making the disturbance, and the use of such a reasonable amount of force as seems to be required to remove the offenders and restore order. But it would be advisable to avoid violence, and instead to adjourn the sitting to another room or to another time, when the obnoxious disturbers may be excluded from admission in the first instance.

557.—COMPENSATION FOR LOSS OF OFFICE UNDER LONDON GOVERNMENT ACT, 1899. —Charge on Compensation Allowance.—I shall esteem it a favour if you will kindly answer the following query through your Legal Column:—I am in receipt of an annual compensation allowance from a borough council, which said council has declined to commute. Can I dispose of same to a private individual, and compel council to accept a charge on same?—"H."

There does not appear to be any statutory or other legal provision which would prevent our correspondent from assigning or mortgaging the amount of compensation payable to him by a metropolitan borough council in respect of loss of office under the London Government Act, 1899. Certain pensions granted for public service are not legally assignable or capable of being mortgaged, but such compensation as that referred to in respect of past services, and especially where the recipient is no longer in the service of the authority, would not come under that restriction. We doubt whether, except in the case of bankruptcy, our correspondent could insist on the council paying the amount of his compensation allowance as it falls due from time to time to any assignee. It seems to us that, as the compensation is a personal allowance and dependent on the life of the person entitled to it, the council may insist on paying it direct to him, and decline to pay it to a mere assignee.

558.—EDUCATION ACT, 1902.—Power of Education Authority to Reduce Salary of Teachers.—Will you kindly inform me whether the local education authority has power to lower the salary of a teacher in a council school under the Education Act, 1902? I hear it has not.—"RONDAR."

The local education authority has power, under Sec. 35 of the Education Act, 1870, to appoint teachers required for any school provided by it, and may assign them such salaries or remuneration as is thought fit, and may from time to time remove any of such officers. It will, therefore, be competent to the education authority to reduce the salary of teachers in a provided school, unless this power has been delegated to the Education Committee, to which the authority may depute the control of education.

559.—POOR LAW—Handbook on Duties of Relieving Officers.—I should esteem it a great favour if you could recommend a book to me from which I could learn the duties and qualifications of a "relieving officer," as I intend acquainting myself with such duties, with a view to obtaining a situation as such.—"INQUIRER."

There are two or three books devoted to the relieving officer and his duties. We have found the "Relieving Officer's Handbook," by W. H. Dumsday (Hadden, Best and Co., West Harding Street, Fetter Lane, E.C., 6s.) a useful and accurate work.

560.—RATEPAYERS' RIGHT OF INSPECTING MINUTES OF URBAN DISTRICT COUNCIL. —Has a ratepayer a general right to inspect the minutes of the urban council of the district in which he is a ratepayer? Kindly refer me to any statutory provisions on the subject.—"NEMO."

Sec. 247 (4) of the Public Health Act, 1875, provides that, in the case of urban district councils, a copy of the accounts of the council, together with all rate-books, account-books, vouchers, &c., referred to in such accounts, shall be deposited in the offices of the council, and be open to the inspection of all persons interested, during office hours, for seven clear days before the (yearly) audit. This provision would include the right to inspect the minute books of the council, so far as they relate to accounts, but, apparently, no further. It would seem to be open to the council or the clerk to take any steps reasonably necessary to prevent a ratepayer or person interested from investigating the minutes which are not concerned with accounts. The council, however, may have made same regulations on the subject under Schedule I., z. i., of the Public Health Act, 1875, and, if so, those rules, until rescinded, must be observed in so far as not in conflict with the general law. There does not appear to be any other statutory provision on the point. Article 13 of the Local Government Board's General Order of Accounts, issued in 1880 (which applies to urban district councils), provides that "all books and accounts" which the council is required to keep shall be open at the time of the audit to the inspection of "any owner of property or ratepayer interested in such accounts," so as, however, not

to interfere with the audit. This regulation would also include the right to inspect the financial portion of the council's minute-book.

561.—**EDUCATION ACT, 1902—Managers of Schools.**—The Town Council elects its Educational Committee at the first council meeting in November.

(1) Who appoints the local managers of schools to join the foundation managers?

(2) How long are they elected for?

(3) What is the method of their election and when?—"W. M. G."

Normally, the number of foundation managers of a non-provided (or voluntary) school is required by Sec. 6 of the Education Act, 1902, not to exceed four. To these, two may be added representing the local authorities. Where the local education authority is the council of a borough (as would appear to be the case in this instance), both of these managers are elected by that authority (Sec. 6 of the Act of 1902). There does not appear to be any special provision as to the method of election or time of election. The method would be by resolution of a majority of the education authority. The time would usually be, in the first instance, at the earliest convenient opportunity after the appointed day for the coming into operation of the Act, or after the occurrence of a vacancy. There does not appear to be any special regulation limiting the period for which a manager may be elected, but the local education authority may at any time remove the manager of a non-provided school whom it has appointed. (See Education Act, 1902, first schedule, B.)

RECENT DECISIONS OF THE HIGH COURT.

Council's Tramways—Is Council Liable for Accident to Passenger who Alights while the Tramcar is in Motion?—"Harmer v. the East Ham District Council."

A correspondent has drawn our attention to the recent case of "Harmer v. the East Ham District Council," which is of particular interest to local authorities owning tramway and other undertakings, in that the verdict was in favour of the authority—a not very usual result in these days of trial by the "twelve good men and true," whose sympathies generally lead them to mulct the great corporations and local authorities in favour of all comers and applicants.

The plaintiff, a woman passenger on the Council's tramcar, stated that whilst she was in the act of alighting at one of the usual stopping-places of the car, she was jerked into the road, and sustained personal injuries. The Council, in defence, said that at the time the conductor was on top of the car collecting fares, and that neither he nor the driver received any notification that the passenger wished to alight, but that the woman, seeing she was likely to be carried past her "desired haven," deliberately got off the car at her own risk, and fell into the roadway. The details of the plaintiff's claim for damages are interesting, and include items for loss of emoluments as a laundry woman and as an ironer, items for loss of lodgers (who left owing to her not being able to attend them), an item for wage of servant whom she was now obliged to keep, and finally an item to cover her weekly bill for food. Evidence was given on both sides, and ultimately the jury took the view that the plaintiff in alighting from the car whilst in motion did so entirely at her own risk. Judgment was accordingly given for the Council, with costs.

Sewer—Drain—"Single Private Drain"—Liability to Repair—Public Health Acts Amendment Act, 1890, Sec. 19—"Haldicke v. Friern Barnet Urban District Council."

Yet another case on the much litigated question as to what is a "single private drain" within the meaning of the section above mentioned. That section provides that where two or more houses belonging to different owners are connected with a public sewer by a "single private drain," an application may be made, under Sec. 41 of the Public Health Act, 1875 (as to nuisances from drains), and the local authority may recover any expenses incurred in executing works under that section from the owners of the houses affected. In this case H. had executed certain works in relaying a drain at the rear of his houses, and now claimed the money spent thereon from the authority. Held by the Court of Appeal, reversing the decision of the Court below, that the drain was a "single private drain" within the meaning of Sec. 19 of the Act of 1890, and that H. was therefore not entitled to recover from the authority the money expended thereon.

BETHNAL GREEN AND ELECTRICITY.

The Borough Council Agrees to Proceed with an Electric Lighting Scheme. It will Apply for a Loan of £75,000. An Outline of the Proposals is Given, with an Expert's Opinion as to the Financial Result.

ALTHOUGH a Provisional Order was obtained in August, 1899, it was not until last week that the Borough Council finally decided upon a scheme for the supply of electricity within the borough. A good deal of the delay has arisen from the difficulty of obtaining a site for a generating station in such a thickly populated district, with 172 persons to the acre. The extent of this difficulty can be seen from the fact that for the site which the council has at length obtained it has had to pay the large sum of £25,000. This contains 66,000 square feet, and the price works out at about £20 a square yard. Of the total cost, however, only £10,500 will be charged against the electricity scheme, and more than half the land will be reserved for other municipal purposes. The site in question is alongside the Regent's Canal, at a point called the Alexandra Wharf, and is known as Marian Square. The proximity of the canal will enable the council to have a lay-bye for the delivery of coal and other materials.

The Scheme Detailed.

It was at first proposed to erect electricity works in conjunction with a refuse destructor, and to employ the heat generated by the destructor for raising steam for the generators. It was estimated that the cost of such a combined scheme would be £106,000, and a scheme for the purpose was drawn up and submitted to the Council by Messrs. Hammond and Son, the consulting engineers. Of this £31,000 was to have been appropriated to the refuse destructor, but after careful inquiries and lengthy consideration, the Council has decided to hang up this part of the scheme, at any rate for the present, and to proceed with the erection of works for the supply of light and power. The system proposed is that known as a low-pressure continuous current direct supply, at a pressure not exceeding 480 volts, across the outer conductors of a three-wire system, the intermediate conductor being, with the approval of the Board of Trade, connected with earth at the generating works, but insulated at all other parts. Under this system the standard pressure of supply on consumers' premises will be 240 volts for lighting and small motors and 480 volts for motors larger than about five-horse power.

The Proposed Works.

The proposed electricity works buildings include the usual boiler house and engine room under two separate spans, the engine room walls being constructed to carry a 15-ton travelling crane. Foundations and seatings for two plants and three boilers are to be arranged for at present. Three marine type water-tube boilers are to be provided, each boiler being capable of evaporating 8,000lbs. of water per hour. There will be two steam-driven sets of dynamos, each consisting of a steam turbine, coupled to two tandem dynamos, either dynamo being designed for a normal load of 150 kilowatts. There will, therefore, be in all two turbines and four dynamos, the latter having a working pressure of from 240 to 270 volts, the arrangement being such that the three-wire system can be properly balanced by either of these sets. The total capacity of the two generating sets will be 600 kilowatts. A motor reversible booster and stand-bye will be provided in connection with the accumulators, and this will be so designed and arranged as to increase the terminal pressure of the battery when discharging, and to decrease the effective pressure of the battery in charging. The batteries included in the scheme will be capable of discharging for ten hours at 10 ampères, and for shorter periods it can reach a discharge corresponding to 300 kilowatts. It is pointed out that the great advantage of the accumulators is that they require very little attendance during the working. In electricity works depending upon accumulators for the day and post-midnight loads, the dynamos can be laid off for from eight to sixteen hours out of the twenty-four, according to whether there be a demand for motive power during the day or not. In Bethnal Green, where there is a number of factories and workshops it is anticipated that motive power will be largely taken.

Mains and Cables.

The length of the distributing mains will be about 21,000 yards, and they will be laid in the 18 principal roads and streets. The feeder cables to charge the distributing mains will have a length of 7,850 yards. Both feeders and distributors will be either triple concentric or three-core, lead covered, and laid in stoneware troughing filled in solid with a bituminous compound. The house service and public lighting cables will be armoured with two layers of steel tape and laid in the ground direct. In regard to public lighting, the estimates provide for 90 arc lamps and pillars, the arcs being arranged in two circuits of nine lamps each and traversing the following streets:—Bethnal Green Road, Hackney Road, Cambridge Road, Green Street, and Roman Road. Nernst lamps may be used for the lighting of the smaller streets, but these will have to wait for the present.

The Finances of the Scheme.

Now that the dust destructor scheme has been eliminated, it is estimated that the capital expenditure will be £75,000, with £3,200 additional for public lamps. The following is the estimate laid before the Council:—

The Works:	£
Buildings, foundations, chimney shaft, and lay-by	18,580
Boiler house plant	8,650
Engine house plant	9,950
Accumulators	2,890
Mains and services	27,200
House meters	1,250
Instruments and switchgear	1,590
Engineers' and architects' fees	3,496
General expenses	750
Contingencies	644
Total	£75,000

Public Lamps:	£	
90 arc lamps, with necessary gear	2,860	
Other expenses	300	3,200
Total cost		£78,200

Probable Results.

With regard to this important side of the scheme, Messrs. Hammond's estimates are as below. Taking the actual available capacity of the generating plant at 600 kilowatts, and deducting 45 kilowatts for the public lighting, the output is thus estimated:—

	Units.	Load factor.
Private Lighting and Power—		
Maximum load of 555 kilowatts used on an average for 3½ hours per day per annum	709,000	14·6 p.c.
Public Lighting—		
Maximum load of 45 kilowatts or 90 arc lamps half in use for 3,940 hours and half for 1,970 hours per annum	133,000	33·7 p.c.
Total	842,000	Aver. 16·0 p.c.

The nett cost of production and distribution of the 842,000 units, in the opinion of the experts, should not, on a 16 per cent. load factor, be more than 1·50d. per unit. With the plant fully occupied, and assuming that a tariff of charges is adopted which would yield an average price from the private lighting and power supply of about 3d. per unit, with a fixed rate charge for the private lamps of £15 per annum each, the financial results would work out thus:—

Revenue.	
Private lighting and power: 709,000 units, at average price of 3d.	£8,860
Public lighting: 90 arc lamps, at £15 per annum	1,350
Meter rentals and sundry receipts	250
Total revenue	£10,460
Costs.	
Cost of generation and distribution of 842,000 units, at 1·5d. per unit	5,260
Gross profit	£5,200

TO TOWN CLERKS,

SURVEYORS,

ENGINEERS,

AND OTHER

MUNICIPAL OFFICIALS.

We are constantly receiving evidence of the value of THE

MUNICIPAL JOURNAL

FOR

OFFICIAL ADVERTISEMENTS

OF

APPOINTMENTS,

TENDERS, &c.

The Sale of the Journal is

INCREASING

Week by Week

Throughout the Country, especially amongst

COUNCILLORS, OFFICIALS,

PUBLIC SERVANTS GENERALLY,

and CONTRACTORS.

Office, 12, SALISBURY SQUARE E.C.

Official Advertisements.

POPLAR UNION.

CONTRACT FOR TEA.

THE Guardians of the above-named Union are prepared to receive TENDERS for the SUPPLY of

100 Chests of Indian TEA at 1s. 6d. per lb., duty paid, to the Workhouse, High Street, Poplar, E.

Samples of tea must be delivered at the Union Offices, 45, Upper North Street, Poplar, before 10 a.m. on Tuesday, the 13th December, 1904.

Printed forms of tender, which alone can be received, containing full particulars and conditions of contract, may be obtained on personal application at my Office, or by forwarding a stamped addressed foolscap envelope.

Sealed tenders must be delivered at the Clerk's Office, 45, Upper North Street, Poplar, on Wednesday, the 14th December, 1904, before 6.30 p.m., on which day they will be considered at the meeting of the Board, and on the envelope must be written the name of the contract tendered for.

The Guardians do not bind themselves to accept any tender, but the person whose tender is accepted will be informed by letter.

G. HERBERT LOUGH,
Clerk to the Guardians.

Union Offices,
45, Upper North Street, Poplar, E.
November, 1904.

BOROUGH OF SOUTHWARK.

TENDERS FOR FODDER.

THE Council of the Borough of Southwark are prepared to receive TENDERS for the SUPPLY of FODDER (for three months) according to specifications, to be seen at the Borough Engineer's Office any day between the hours of 10 a.m. and 4 p.m.

Tenders, duly signed, must be sent under cover, endorsed "Tender for Fodder," and addressed to the Town Clerk, not later than 12 noon on Wednesday, December 7th, 1904.

The Council do not bind themselves to accept the lowest or any tender.

J. A. JOHNSON,
Town Clerk.

Town Hall,
Walworth Road, S.E.
1st December, 1904.

WANTED, in London, a thoroughly capable AUDIT CLERK, trained in Accountancy. Inclusive salary £170. Applications, stating age, present salary, experience, and qualifications, with references or copies of testimonials, to be addressed to "District Auditor," care of the MUNICIPAL JOURNAL, 12, Salisbury Square, E.C.

SITUATION WANTED by a respectable Young Man, aged 22, as Junior Assistant in a Surveyor's Office. Over four years' experience. Salary moderate. Write H. G. Roberts, Two-Mile Hill, Bristol.

SITUATIONS.—Advertisements of Situations Wanted in Municipal and Poor Law Offices are inserted at Specially Low Rates. For particulars, address the Manager, "Municipal Journal," 12, Salisbury Square, London, E.C.

EATON & KNAPP,
BOILER SETTERS & FURNACE BUILDERS,
Repairs in Boiler Brickwork & Dust Destructors of all kinds.
ESTIMATES FREE.
23, CLACTON ROAD, WALTHAMSTOW.

THE CLARION
THE PIONEER JOURNAL OF SOCIAL REFORM.
Edited by ROBERT BLATCHFORD.
You should read "THE CLARION" for reliable information as to
MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD
In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century.
You Must Read "THE CLARION."
Send for specimen copy to "THE CLARION" Office.
72, FLEET STREET, LONDON, E.C.

SUN FIRE OFFICE — FOUNDED 1710
SUN FIRE OFFICE
HEAD OFFICE:
63, Threadneedle Street, London, E.C.
Branch Offices in London: 60, Charing Cross, S.W.; 382, Oxford Street, W.; 40, Chancery Lane, W.C.; 4, Mincing Lane, E.C.
BIRMINGHAM .....10, BENNET'S HILL.
BRISTOL.....CORN STREET.
LEEDS.....SUN BUILDINGS, 15, PARK ROW.
LIVERPOOL.....SUN BUILDINGS, 6, CHAPEL-ST.
MANCHESTER.....71, KING STREET.
NEWCASTLE.....19, COLLINGWOOD STREET.
EDINBURGH.....40, PRINCES STREET.
GLASGOW.....42, RENFIELD STREET.
DUBLIN .....10, TRINITY STREET.
Funds in Hand, £2,535,800.

LIGHTNING CONDUCTORS.
J. LEWIS,
5 and 6 Great Winchester Street, London, E.C.
TELEPHONE No. 3053 CENTRAL.

WARD & MACONIE,
15, HANOVER STREET, LONDON, W.
Municipal Robe Makers and Court Tailors.
PRICE LIST ON APPLICATION.

SULPHUME
(SULPHUR DIOXIDE)
FOR
ROOM DISINFECTION
As adopted by the WAR OFFICE, and numerous HOSPITALS, CORPORATIONS, and other SANITARY AUTHORITIES.
MAKERS AND PATENTEES,
A. BOAKE, ROBERTS & CO., Ltd.,
STRATFORD, LONDON, *ENGLAND.*

DELICIOUS COFFEE.
RED WHITE & BLUE
For Breakfast & after Dinner.
In making, use LESS QUANTITY, it being so much stronger than ORDINARY COFFEE.

EYRE & SPOTTISWOODE.

SECONDARY EDUCATION IN LIVERPOOL.—Report on Secondary Education, including the Training of Teachers for Public Elementary Schools. By MICHAEL E. SADLER, M.A. Buckram, 2s. 6d.

SECONDARY AND HIGHER EDUCATION. Report on Secondary and Higher Education in Sheffield. By MICHAEL E. SADLER. Paper, 1s.

CHANTREY TRUST. Report from the Select Committee of the House of Lords. 2d.; Evidence, 1s. 11d.

JAPANESE COLOUR PRINTS. By EDWARD F. STRANGE. With numerous Illustrations. 1s. 6d.

ENGLISH PORCELAIN. By A. H. CHURCH, F.R.S. With numerous Illustrations. Paper wrappers, 1s. 6d.; cloth, 2s. 3d.

ENGLISH EARTHENWARE. By A. H. CHURCH, F.R.S. With numerous Illustrations. Paper wrappers, 1s. 6d.; cloth, 2s. 3d.

PUBLIC GENERAL ACTS, 1904 (Cheap Edition). Published by authority. Red cloth, 3s. This volume contains all the Public Acts passed during the Session, with Index to same; also Tables showing the effect of the Legislation, together with complete and Classified Lists of the Titles of all the Local and Private Acts passed during the Session.

THE HOUSING ACTS. By A. P. POLEY, Barrister-at-Law. Fcap. 8vo. 3s. 6d.
"Wherever we have tested it, it seems accurate, terse, and to the point, and there is a good index."—*Pall Mall Gazette.*

A GUIDE TO THE PUBLIC HEALTH ACTS, 1875 and 1890, AND THE LOCAL GOVERNMENT ACTS, 1888 and 1894, with the Incorporated Acts relating to Urban and Rural District Councils, together with the Private Street Works Act, 1892. By L. GACHES, L.L.M., B.A., Barrister, Counsel to the Associations of District Councils (3s. 6d.)

EAST HARDING STREET, LONDON, E.C.

An admirable Food of the
EPPS'S
Finest quality and flavour.
COCOA
Nutritious and Economical.

MUNICIPAL JOURNAL
FRIDAY, DEC. 2, 1904.

NOTES AND COMMENTS.

London Water Awards.

THE New River Company's award of £6,534,000 is the last of the settlements in the London water arbitration, and it is now possible to see what the ratepayers are having to pay for this enormous undertaking. The following table shows the amounts claimed by the various companies, the cash awards, and the debentures that are to be satisfied by the issue of "A" stock, as opposed to the "B" stock given in place of the cash awards:—

	Amount claimed.	Cash award.	Debentures.
Chelsea	£4,750,000	£3 305,700	£175,785
East London ...	7,204,144	3,900,000	2,251,000
Grand Junction (including Staines Reservoirs)	4,767,219	3,349,500	325,000
Kent	2,981,520	2,712,000	220,000
Lambeth	5,511,342	4,301.000	675,000
New River	11,666,666	6,534,000	*
Southwark and Vauxhall	5,674,140	3,603,000	2,290.000
West Middlesex ...	4,200,240	3,524,000	400,000
Total ...	£46,755,271	£31,229,200	£6,336,785

* Included in cash award.

It should be borne in mind that the £703,500 debentures of the Staines Reservoirs Joint Committee are included in the Grand Junction award, while with regard to the New River Company it was expressly provided that compensation should be paid wholly in Water stock, and that the undertaking should be transferred without any obligation for debenture stock. Hence the total cash to be paid comes to £31,229,200, or, if allowance be made for compensation to directors and sundry outgoings, to about £32,500,000, in round figures, and in addition debentures to the amount of £6,336,785, bearing various rates of interest from 3 to 5 per cent., have to be provided for. Quite recently an issue of just under a million and a-half of Water Board "B" stock was successfully made to provide the cash required for certain purposes, and this amount must be added to the equivalent in "B" stock of the cash award.

Awards as Stock.

IN the next table will be found the cash awards, what they represent in Stock at 109½, and the amount of Stock agreed to be taken by the members of the water companies:—

	Cash Award.	Equivalent in "B" Stock at 109½.	Amount of Stock accepted.
Chelsea	£3,305,700	£3,619,741	£3,600,242
East London ...	3,900,000	4,270,500	3,983,200
Grand Junction ...	3,349,500	3,667,703	2,986,973
Kent	2,712,000	2,969,640	2,954,091
Lambeth	4,301.000	4,709,595	4,664,700
New River	6,534,000	7,154,730	7.154,730
Southwark & Vauxhall...	3,603,000	3,945,285	3,443,563
West Middlesex ...	3,524,000	3,858,780	3,832,336
	£31,229,200	£34,195,974	£32,619,835

From these figures it will be seen that only a little over a million and a half of stock has not been accounted for, and it is quite possible that the amount by now is even smaller, as the figures given were those mentioned at a meeting of the board several weeks ago. Adding the amount of the recent issue, the total "B" stock aggregates about £35,650,000, and there remains the "A" stock to consider, by which the debentures are to be replaced. It is understood, although no exact statement can be found either in the Act or in the Order in Council relating to it, that debenture holders are to receive such an amount of Three per Cent. "A" stock as will yield the same interest as that hitherto received. On this basis, £7,495,000 "A" stock will have to be issued in order to replace the £6,336,785 of different interest-bearing debentures, and the combined amounts of "A" and "B" stock will represent a total of £43,145,000. The price is, therefore, enormous, and we cannot hold out any hopes to the ratepayers either of a reduction in charges or of a relief of the rates for a long time yet. Indeed, so well have the interests of the companies been safeguarded, that the expenditure shows a tendency to increase rather than to decrease. The savings of directors' salaries and other items will be more than counterbalanced by the pension list to officials.

Liverpool and Housing.

THE Liverpool Housing Committee is making a number of interesting inquiries into various aspects of the local housing question. A special sub-committee, in the first place, has been appointed to consider the cost of the dwellings erected, and to report as to the possible means of cheapening them. Another decision is to ascertain the cost of demolition, sites, street improvements, building, &c., in connection with rehousing schemes, with a view to ascertaining the loss to the Corporation of the operations, and further, to obtain a return showing what percentage of the dispossessed availed themselves of the Corporation dwellings, and what percentage declined to do so. Another interesting proposal is that while some of the dwellings may be let at rentals which the very poor are able to pay, the rents of the ground-floor dwellings be increased to the maximum now paid.

Municipal Music.

MR. SPENCER PHILLIPS, the chairman of Lloyds Bank, in his recent address, denounced the action of the Yarmouth Town Council in running a "music hall," which we were able to show was a source of relief to the rates. Yarmouth is not the only town which knows how to make municipal music pay. At Margate the Corporation provided the municipal Fetes Committee at the beginning of last season with £200 as working capital. The accounts, which have just been audited, show receipts amounting to £6.454, while the expenditure totals £5.153. The whole of the working capital has been repaid to the Corporation, together with a cash sum of over £1,000, leaving a good balance in hand to start the coming year's work. It is curious how facts always knock the bottom out of anti-municipal traders' "arguments."

Good Templar London Mayors.

ALTHOUGH the days when a teetotal Mayor was a *rara avis* have long since passed away, London has not hitherto presented many instances of the conferring of municipal honours upon those who claim membership with the independent Order of Good Templars. The present year, however, is an exceptional one in this respect so far as the metropolis is concerned, no fewer than six of its borough councils having elected Good Templars to the mayoral office. They include Chelsea, whose mayor is Mr. James Jeffrey; Fulham, the only borough which has for five successive years thus honoured a Good Templar, Mr. Sayer succeeding Mr. Timothy Davies; Hackney, Mr. Tom Hosgood; Battersea, where Mr. Alderman West is Mayor; Southwark, with the Rev. A. W. Jephson; and St. Pancras, where Mr. Purchese has been elected. In the City the newly-elected Sheriff, Mr. Thomas Vesey Strong, has been for many years actively identified with the Olive Branch of Good Templars; and of the London County Council both Mr. J. Williams Benn, the chairman, and Mr. A. E. Cornwall, the vice-chairman, belong to the Order. Another unusual circumstance is the fact that for all the riverside constituencies, from Chelsea to Twickenham, Good Templars have been selected as Parliamentary candidates. These facts have been duly noted by the Middlesex District Lodge of Good Templars, and it is in contemplation to arrange a public reception in honour of these several gentlemen, probably in the Chelsea Town Hall, at an early date.

Municipal "Stagnation."

MR. JAMES BOYLE, United States Consul in Liverpool, ought to be able to interpret the signs of the times better than he does in the November report to his Government. It is hardly accurate to say that "there is an unmistakable cessation of the tendency towards the municipalisation of industries." Parliament will have before it next session a very large number of municipalisation proposals, including one of the biggest that has yet been put forward—that for the purchase of the London docks and their administration by a public authority. We agree with Mr. Boyle, however, when he says that:—

> There are influences at work, well organised though quiet, which have for their object the wiping out, or at any rate the curtailment, of "municipal socialism."
>
> This movement is taking advantage of the

fact of the growing opposition to increased municipal taxes, the claim being made that the municipalisation of industrial enterprises not only kills individual effort, but adds to the municipal rates.

Mr. Boyle should know that this movement is by no means a new one. Its origin goes back to even before the formation of the Industrial Freedom League, which is an organisation avowedly formed to advance the interests of the British Electric Traction Company. The fact that others besides the Trust now contribute to its campaigning funds only makes it even more opposed than formerly to the public interests. The spirit of economy that animates local government at all times is a very proper one. It is not greater now than it ever was; all that has happened has been that financiers who want to blame some other cause than the real one for the depression that exists in their business, find a convenient scapegoat in the municipalities, which are unable to reply to slander in the effective way open to commercial enterprises generally.

The "Other Side."

MR. BOYLE adds that "of course there is another side to this question." It is a pity he does not proceed to tell his Government, and through them the American nation, how strong that other side is. The tables which have been prepared by the Borough Treasurer of Preston, and which we publish this week, contain facts that the Industrial Freedom League and the bankers may ignore, but which they can never explain to their satisfaction. These tables conclusively prove that rates are made up, not of losses from those terrible "trading" enterprises, but of expenditure necessitated by Education, Health, Poor Law, and other general services which Parliament has directed the municipal bodies to perform. The figures further show that, so far from adding to the rates, municipal trading is considerably relieving them, in this very year when the agitation against development has reached quite the hysterical stage. In all of the towns whose names are given by Mr. Carter, the rates would now be higher by amounts varying from 1s. 8d. to 1½d. in the £, were it not for the allowances that have been made for profits from markets, gas, water, electric light, tramways, and other estates belonging to municipal bodies. And these are the very undertakings, it must always be remembered, in respect of which the Industrial Freedom League is continually agitating in favour of those who so generously contribute towards its funds. The League says nothing against municipal enterprise in baths and washhouses, because there is very little to be got out of them. It is equally silent for the same reason concerning cemeteries. But if its object is to reduce the rates, as it says it is, the League should surely attack those services which burden the rates, and not those which, as is proved by Mr. Carter's tables, relieve them. We invite the League and its colleagues on the platform and in the Press to live up to their principles, and, instead of opposing those particular branches of municipal enterprise now proved to produce rate relief, to turn its activities to those which really do add to the ratepayers' burdens. We should not support the Industrial Freedom League even if it opposed educational development and good drainage, but we should be conscious of the fact that its advocacy was not designed to serve the personal interests of its members.

N.T.C. Tactics.

HOW opposed to the public interests are the actions of the companies which the Industrial Freedom League represents is illustrated by the case of the National Telephone Company at Liverpool. For some time past the Liverpool Chamber of Commerce has been agitating for lower rates, but so far it has been unsuccessful. The company has in some places, however, conceded lower rates, but curiously enough there is municipal competition in those towns. The company now explains that the adoption of cheap rates in other places is experimental. As these experiments have now been going on for two or three years, one would think that ample time has now elapsed to find out whether the experiments are satisfactory or not. The company appears to adopt experiments only where it meets with municipal competition, and only in these places does it adopt such a large variety of tariff charges as are in operation in Glasgow, Hull, and other places. It is remarkable that in places like Liverpool, Manchester, and Birmingham, which not only grant the company extensive way-leave privileges, but by abstaining from competition permit the company to enjoy a free-handed monopoly, there is nothing given in return for these concessions by way of cheaper rates. On the other hand, at a place like Glasgow, which has not only strenuously competed with the company, but has steadily refused to give undergound facilities, the citizens are rewarded by being offered cheap telephone rates and frequently concessions of various kinds which hitherto were undreamt of. It seems paradoxical to reward one's enemies and handicap friends, but this appears to be the attitude of the telephone company. The only way for places like Liverpool, Manchester, Birmingham, &c., to extract concessions from the company is, in addition to an expression of public opinion, to let the company understand that it is within the power of these corporations to withdraw the way-leave facilities. Our readers will be interested to note that an article dealing with the Hull Exchange, opened on Monday, will appear in next week's issue.

"Running Powers."

MR. STEPHEN SELLON yesterday (Thursday) evening read an interesting paper on "Running Powers" before the Tramways and Light Railways Association. With his views on the general question very few will disagree. That running powers are desirable when they can be arranged satisfactorily with due consideration of the public interests no one will dispute. But in this country the circumstances are such that public interests often clash with company interests. The position here is that in the towns the tramways are mainly controlled by the corporations, and that in the country districts companies are largely in possession. To say that because the general principle of running powers is a good one the latter are entitled to compulsory facilities over the former, is grossly inequitable. The circumstances of the two cases are not synonymous. Municipal authorities operate tramway lines wholly in the interests of the public; companies conduct them solely with the object of making dividends. Companies often close down lines because they do not earn sufficient revenue, as the Trust has done this year in the Midlands; municipalities often run along routes that may be financially unprofitable in order to open up new districts, and to help solve the housing problem. To argue that under these circumstances both kinds of undertakers are entitled to the same consideration is absurd. The contention that corporations as road authorities have no right to control tramway companies running through their districts is equally fallacious. Mr. Sellon said at the beginning of his paper:—

> The road authorities have no right over the roads they maintain superior to those of the traveller from the most distant county or foreign lands. They have duties in respect to the roads; mainly to keep them open, safe, and unobstructed to all comers; they have certain legal powers given them to enable them to perform those duties and to meet the consequent expenses, but proprietary rights or powers to obstruct, tax, or detain the traveller are not in their possession.

If road authorities have all the duties and no rights why were they given the tramway veto? "Proprietary rights or powers to obstruct, tax, or detain travellers" certainly are in their possession to an extent, or they would not be able to prevent companies carrying those travellers in a particular way. "The public road is the King's highway: free, peaceable, unobstructed passage is the right of every wayfarer thereon," chanted Mr. Sellon last night. There is not much of the "King's highway," or of "free, peaceable, unobstructed passage" about High Street, Brentford, when Mr. Clifton Robinson's tramways are blocking that exceedingly narrow, inconvenient, and dangerous thoroughfare. And yet Mr. Robinson wrote to the papers about "blackmail" when the local authority wanted the street widened by the company which is making a fortune out of it! Mr. Sellon's amiable suggestion that local authorities merely exist to provide roads for tramway companies may be a cardinal point in the belief of the British Electric Traction Company, but it is not the opinion of the legislature nor of public bodies. Companies which make money out of the public roads ought to be made to surrender at least a share of their plunder to the people they exploit.

"L.C.C. and Housing."

IN a letter published in another column Mr. S. H. Halford professes himself dissatisfied with our "explanations" of the London County Council's inability to house the poorest. He says we imply that "a local authority cannot build at a price low enough for the pockets of the class for whom it professes to specially cater." If Mr. Halford means, as we suppose he does mean, the "poorest class," there is no doubt about the inability of a local authority to cater for them. No local authority, so far as we know, has yet claimed that it is able to house the poorest of the poor without going upon the rates. We entirely agree with Mr. Halford that 13s. 9d. per week is far too much to charge for a five-roomed cottage at Tottenham, and that it ought to be possible to build more cheaply. It certainly ought, but the fact remains that, under present conditions, which we explained last week, it isn't. If the London County Council attempted to revise its plans on the lines suggested, it would at once have a Government Department down upon it for evading its obligations. No practical end is secured by attempting to blame the Council for observing conditions which it cannot at present avoid. If our correspondent will endeavour to assist the Council in getting less stringent conditions and longer loan periods, he will be making some real contribution towards the solution of the problem.

POOR LAW OUTLOOK.

The "C.O.S." Still Believes in Private Charity, and Criticises Mr. Long. The Tide of Pauperism is Rising Both North and South. Leicester has a Drastic Scheme for the Unemployed. Chelsea Does Not Favour Labour Colonies.

The "C. O. S." and Mr. Long.

FOLLOWING on the report of its special committee, which was referred to in last week's *Municipal Journal*, a special meeting of the Council of the Charity Organisation Society was held on Monday at the Royal United Service Institution. The attendance was a large one, and, for the most part, the speakers appeared to be actuated by a desire to criticise Mr. Long's scheme, and to contend that there was no exceptional distress with which well-organised charity could not cope. Sir Arthur Clay was responsible for three resolutions. The first of these laid it down that any money required for the provision of employment and relief should be provided by voluntary subscriptions. The second was to the effect that borough councils should limit the providing of work to such as would be undertaken in the course of their normal duties; and the third objected to the establishment of a central metropolitan fund out of grants made from the rates by borough councils for providing employment for the people.

❦ ❦ ❦

The Virtues of Organised Charity.

SOME luminous speeches were made in the course of the discussion. The Rev. C. F. Rogers declared that properly organised charity was perfectly able to meet all distress. Mr. Russell Barrington, who comes from Somersetshire, was certain that there was no exceptional distress—in Somersetshire. "We cannot be more unpopular than we are," said Mr. Crowder; and a lady speaker attributed all the distress to the wicked trade unions. "Is it to go forth," asked Mr. Morris, "that we are opposed to everything?" And another gentleman hoped it would not be thought that they were merely obstructionists. In the end, after the Rector of Poplar had asserted that there was a large mass of distress which could not be met by the Poor Law or by private charity, the Council agreed to a resolution urging its members to join the joint committees connected with Mr. Long's scheme and to co-operate with them.

❦ ❦ ❦

Yorkshire Pauperism on the Increase.

THERE is very little that is comforting in the report which has just been issued by Mr. Philip H. Bagenal, the Poor Law inspector for the East and West Ridings, on the subject of pauperism in those divisions of the county. In nearly every direction Mr. Bagenal has to report an increase, and there is an upward tendency all round. The percentage of paupers to the population for the whole district for the first week in the present year was 1·8, as against 1·7 in 1903, 1·6 in 1902, and 1·5 for the same period in 1901 and 1900. A comparison of the numbers relieved during the five years gives a clearer idea of the increase. In January, 1904, the total was 56,581; in January, 1903, 54,842; in January, 1902, 54,048; in January, 1901, 51,981; in January, 1900, 51,642. In the district there are 46 workhouses, three separately administered infirmaries, 51 scattered homes for children, four groups of cottage homes, four certified schools and other institutions, bringing the total to 124.

❦ ❦ ❦

The State of the Workhouses.

IN view of recent remarks which have been made with reference to the increased attractiveness of workhouses and the consequent growth in the number of inmates, Mr. Bagenal's figures are interesting. There are 35 workhouses in the West Riding, and of these 26 had more inmates in January, 1904, than twelve months previously; eight showed a slight falling-off; and one remained at the same total. The numbers on out-relief were also increased from 31,364 to 32,380; and taking both classes there was a total of 44,713 in 1904. As compared with 1903, this showed an excess for the present year of 1,640, or 3·8 per cent. In the inspector's opinion, the most important feature in the pauperism of the district is undoubtedly the increased number of people who have gone into the workhouses, but he appears to derive some consolation from the fact that most of the important boards of guardians have been for some time preparing for an extension of their buildings.

❦ ❦ ❦

In the South of England.

THAT the rate of paupers is increasing in other parts of the kingdom is evident from Mr. Baldwyn Fleming's annual report to the Local Government Board on pauperism in Hants and Dorset. This report, which covers the union counties of Dorset and Southampton, and parts of Wilts and Surrey, shows that pauperism is not only increasing throughout the district, but that the ratio of increase stands in a worse position than it did a few years ago. Vagrancy is also extending, and on this subject Mr. Fleming makes some strong suggestions. Dividing the vagrants into three classes—those who cannot work, those who can work but will not, and those who can and will—he points out that the last form a very small proportion of the total. There is "a very large sprinkling of men in the casual wards who are evidently incapable of earning their own living by honest means." They should be prevented from pursuing their miserable course of life, and a way in which this could be done would be by obtaining powers to remove them compulsorily to their own unions and to keep them there.

❦ ❦ ❦

Alcohol and Temporary Insanity.

DEALING with cases of temporary insanity induced by an excessive use of alcohol, Mr. Bagenal repeats a complaint of the clerk to the Leeds Board, that his guardians get more than their fair share of such cases. This arises from the practice of the magistrates in committing to the workhouse for temporary detention, as of unsound mind, of persons suffering from the effects of drink. In some cases magistrates have sent "black-listers" to the workhouse rather than commit them to prison. Such a custom, Mr. Bagenal argues, is not satisfactory, and places an expenditure upon the rates which is by no means fair. There is, he says, no chance of a permanent reform during detention in a workhouse, and when a man is released he has not been punished in the slightest degree.

❦ ❦ ❦

The Police and Relieving Officers.

THE Stafford Board of Guardians has just had submitted to it a correspondence which raises a point of general interest. It commenced with a letter sent to the Local Government Board by Captain the Hon. G. A. Anson, the chief constable of the county, in which a series of questions was asked with reference to the position of the police in regard to persons whom they found destitute, helpless, or injured, and conveyed to the workhouse infirmary without an order. To whom, asked the captain, must the police look to relieve them of the charge of such persons, and to defray the necessary cost? Before answering, the Local Government Board desired the opinions of the relieving officer. This official, in his reply, said that for 18 years, to his knowledge, the police had until recently recognised it as their duty to remove to the workhouse infirmary people whom they had found on the road in a distressed condition, without waiting for an order of admission from him. In such cases the master had power to admit [illegible] to send th[illegible] authorit[illegible]

❦ ❦ ❦

York Guardians Surcharged.

A SOMEWHAT interesting situation has arisen at York in connection with the surcharge of a sum of £383 paid as wages to able-bodied men at the workhouse for whom employment had been provided. The workhouse master appealed to the Local Government Board on the subject, and stated that he had acted under the orders of the guardians. At Friday's meeting of this body the clerk presented a draft letter asking for a remission of the charge, which it was proposed to send to the Local Government Board. On this there was a considerable amount of discussion, the rural guardians disclaiming any responsibility, and some of them protesting that they had warned the Board again and again of the illegality of their action. At the close of the discussion it was decided to send the letter as drafted.

❦ ❦ ❦

Leicester and the Unemployed.

IN this column, a fortnight since, reference was made to the serious condition of affairs in Leicester, and to the great increase in pauperism which was recorded. Since then matters appear to have grown worse, and the fact that close upon 1,200 men have registered themselves at the local Labour Bureau is a testimony to the state of employment in the town. It is stated, however, that the Unemployed Committee is "desperately in earnest," and has decided that "either the Government must deal at once with the question, or, if the Legislature declines to realise the responsibilities of the nation in the matter, the Corporation and other public bodies ought to unite in forcing legislatiou which will give them greater powers to deal with the question in a more permanent and rational way."

❦ ❦ ❦

Still Another Scheme.

IN the meantime, Alderman Smith, who, besides being a member of the committee, is the local representative of the Board of Trade, has drawn up a scheme, for the carrying out of which he recognises that greater Parliamentary powers would have to be given to local authorities. For *bona-fide* resident workers requiring temporary help, he would give local authorities power to acquire land near towns for the purpose of cultivation by the unemployed and for division into small holdings and allotments. The same authorities in times of necessity should also have power to expedite and pay for works of public utility, the acceptance of employment thereon not to carry with it the penalty of disfranchisement. For the physically incapacitated and the chronic out-of-works, Mr. Smith would give groups of guardians power to establish labour colonies and other works, with power of detention; and for habitual vagrants the Government should find employment in labour colonies, &c., with power of detention until such persons had been taught self-restraint and acquired the power and will to do honest work. These suggestions are to be considered at a joint meeting of the town council and the board of guardians.

❦ ❦ ❦

Chelsea Guardians and Land Colonies.

THE Chelsea Board of Guardians, at its last meeting, devoted a considerable amount of attention to the question of labour colonies. The Rev. J. Pullein Thompson moved, "That in view of the present state of the labour market, and the large numbers out of employment, it would be wise on the part of the board to consider the advisability of providing work for the unemployed on the land by starting a labour colony on the lines of the Poplar labour colony, which is meeting with great and unqualified success." Mr. Thompson supported the motion in a speech which Mr. Jeffery, L.C.C., declared the most radical he had ever heard, but the board was not prepared to go so far as the reverend gentleman, and decided by nine votes to six to delete all the words after "land." Notice was given of a resolution to form a committee on the subject.

GAS EXHIBITION

THE Gas Exhibition, now being held at Earl's Court, is not only interesting but nnique, in that it is the first of its kind that has been held in this or any other country. The aim of the promoters has been to provide a really international exhibition, exclusively devoted to the display of towns' gas in its many applications; and the result is an attractive exhibition, which illustrates in a marked manner the great strides which have been made in the gas industry since it came into competition with electricity—that is, within the last quarter of a century. Both the mannfacture and the application of gas in all its varied forms are illustrated in the numerous attractive stands which make up the exhibition in the Qneen's Palace, the Princes' Hall, and other buildings, and the exhibitors include some of the best-known companies and firms in the world.

Lighting, Heating, and Cooking.

The development of the incandescent system of gas lighting, which has progressed so much in late years, has special attention, as does also the provision of the most efficient high-power lamps for public lighting in the streets and other places, and some of the results achieved are distinctly in advance of anything that has gone before.

Lighting is not, however, the whole end and aim of the exhibition, for a large amount of space is devoted to the latest specimens of gas stoves for heating and cooking purposes, and to illustrations of a number and variety of trade and special uses for gas. Gas engines, a handy source of distributed power, are also present in their latest forms.

An interesting section of the exhibition is that devoted to showing the improvements which have been made in the mechanical resources of the gas manufacturer. These have completely changed the character of the operation, and machinery for hanling coal and coke has superseded hnman mnscle.

Some Mechanical Improvements.

Perhaps the most notable exhibit in this latter direction, and one which is seen immediately upon entrance, is that set up by Messrs. Graham, Morton and Co., Limited, of Leeds (No. 13). It is the largest exhibit of working machinery that has ever been put np, and shows five different classes of conveyors applicable for hanling coal and other heavy material. The original idea of the design has been carefully kept, and the machinery shown passes the coal antomatically and continuously ronnd the whole of the plant, and through each section of the apparatus, which is self-contained and works with admirable precision.

In order that visitors may be able to take full advantage of the exhibit, Messrs. Graham, Morton and Co. have erected a bridge immediately over it, from which the whole of the operations of the plant can be clearly seen, and may be closely followed—an opportunity not to be missed by engineers and others interested in gas, electric, and other works.

The plant may be described as follows:—A receiving hopper placed at one end antomatically feeds the gravity bncket conveyor, a noteworthy feature in the design of the latter being the overlapping of the bnckets, facilitating the feed so that there can be no spilling of the material at the point of feed. Large installations of both these types of gravity buckets have been erected by the firm for gas and electricity power stations, and the conveyor is a perfect one for conveying and elevating coal, coke, and oxide in gas works.

The overlapping buckets convey the coal overhead and deliver into the Graham's Patent Rubber Belt Conveyor, the principal advantages of which are the small amount of horse-power reqnired to drive it, the length of belt which can be utilised, and the perfect control of varying speeds. The "Idler Rollers" are built up of drawn steel tubing, and are nnbreakable.

Conveyors at Work.

Another class of conveyor exhibited is extensively applied in the storing of coal in gas-works, electric light works, boiler honses, &c., a tripper carriage throwing the coal off the belt automatically. It can be moved antomatically along the whole range of coal stores or tanks in either direction, the power for this purpose being transmitted to the propelling gear by the motion of the belt itself. From this conveyor coal is delivered on to another type known as a continuous double-sided pnsh-plate conveyor, the novelty of which is, that both the top and bottom tronghs may be ntilised. A double duty is thns accomplished.

This system of antomatically filling and emptying coal stores completes a cycle of operations; and an economic consideration that shonld be borne in mind is the fact that the work of emptying the coal stores costs nothing, bnt is included in the cost of filling. Thus two operations are performed at the cost of one. A fine example of this class of conveyor may be seen at the Nanterre Gas-works, where the coal is taken from the boat into the coal stores, and automatically from the latter into the bnnkers of the retort house, at a total cost of 1d. per ton.

From the point of vantage which the bridge offers, it will be noticed that the gravity bucket delivers the whole of its coal on to the belt conveyor, and in turn the belt conveyor delivers the whole of its load on to the double push-plate conveyor, and from this conveyor, by means of the doors and slides in the top trongh, the coal is fed about equally on to the push-plate conveyor and the tray conveyor. The two latter discharge the coal into the receiving hopper, whence it is fed into the gravity bucket conveyor, thus completing the cycle of operations.

In the small space available, it has only been possible for the firm to give visitors but a faint idea of the plants which they have erected and have now in course of construction at their engineering works in Leeds; for large as this working exhibit is, its capacity is but as that of a toy model in comparison with the vast

(Continued on Page 959.)

"RONUK" (SANITARY) POLISH

For Floors of Hospitals, Asylums & other Institutions.

POLISHES, PRESERVES, AND PURIFIES.

Awarded Bronze Medal of Sanitary Institute.
Only Award ever granted to a Polish.

When "RONUK" is used the floors present a hard smooth surface which prevents the harbouring of germs.

"RONUK" Ltd., make a speciality of the first preparation for all kinds of flooring, and keep a large staff of Polishers for the purpose.

Awarded Bronze Medal of Sanitary Institute.
Only Award ever granted to a Polish.

MANUFACTURED IN TWO FORMS.

Concentrated.—Consistency and strength can be adjusted by dilution to suit the requirements of every kind of flooring.

Liquid.—A liquid preparation of uniform strength.

"RONUK," Ltd., Head Office and Factory, **Portslade, near Brighton.**

LONDON DEPÔT: 86, York Road, Lambeth, S.E.

MANCHESTER DEPÔT: 285, Deansgate.

ELECTRICITY SUPPLY.

Eastbourne, with Exceptional Capital Charges, Shows a Surplus on the Year's Working. Poplar Continues the Story of Rapid Growth in the East End of London. The Two Annual Reports are Compared.

THE south coast watering places were pioneers in the electrical supply world, and by this very fact have, perhaps, suffered through the plant being anything as a rule but of the modern character. In consequence of this and of the seasonal character of the load, coupled with the lack of progressive ideas which seems to be the rule with the southern railway companies, and the distance from the coal-fields, the electrical undertakings along the south coast are characterised by higher costs and greater charges than are to be found in other parts of the country. In recent years there has been a revival, and steps have been taken to as far as possible modernise the plant and improve the conditions of supply. Thus, at Eastbourne the public were up to the end of the last financial year asked to pay 6½d. per unit for lighting and 3d. for power, but these charges have been reduced by a halfpenny in each case, and public lamps which cost £25 per annum now are rated at £22 each. This should tend to bring about an increase in custom, which will assist the load of 743 kilowatts and help to fill up the plant, of which there is plenty to spare, as 1,200 kilowatts are installed. The results for last year at Eastbourne, as shown by the abstract of accounts to the 31st of March, 1904, are as follows :—

The revenue derived from sales of current, &c., amounted to		£21,421
And the working expenditure to		8,412
Leaving a gross profit of		£13,009
Out of this sum the following requirements were met :—		
Dividends on stock	£4,327	
Sinking fund	4,744	
Stamp duty	84	
Total of capital and special charges		9,155
Nett surplus for year		£3,854
Add interest received		4
Gross surplus for year		£3,858

The Cost of an Exhibition.

THE figures require some slight modification before they can be held to exhibit the working results of the supply portion of the undertaking. Including in the revenue account are the receipts and charges for the electrical exhibition. The particulars given are interesting, as they show how difficult it is to make ends meet on such a venture. The receipts from rents for stands, &c., amounted to £45, and from admissions to £25, making a total of £70. On the other hand, the expenses incurred included wages, £20; hire of hall, £21; advertising, £8; bands, £14, while sundry office charges brought the total up to £73, so that the deficit is small. In the motor-hiring department £79 was paid for purchase and £107 received from sales and hire, yielding a profit of £27. Installation work produced £88, and cost £29, so that there was a profit of £63 under this head. Eliminating the expenditure of this special department, and dealing only with the profits, the revenue was made up in the following manner :—

	Units.	Yielding.	Per unit.
Private consumers took ...	733,322	£18,176	= 5·949d.
Public lamps consumed...	163,871	2,357	= 3·452d.
Interim total ...	897,193	£20,533	= 5·493d.
Meter rentals	—	444	= ·119d.
Sales of goods, work done, and rents received, &c.	—	177	= ·071d.
Profits on installations...	—	63	
Motor hiring and repairs	—	27	
Total receipts ...	897,193	£21,244	= 5·683d.
Units used on works ...	13,841		
Total accounted for	911,034		
Utilised on distribution	195,232		
Total units generated	1,106,266		

Exceptional Capital Charges.

THE number of consumers is large for the output, being 888, with 62,998 lamps connected to the mains. This partly explains the exceptional capital charges, which exceed the total cost, and indicate the importance of cultivating the bye-uses of electrical energy. 2·427d. per unit for interest and sinking fund appropriation is a heavy tax to meet. The local authority allowed a company to pioneer the supply in Eastbourne, and when it was decided to take over the undertaking a large sum had to be paid as purchase price, namely, £88,749, to which the cost of acquisition added £1,080, and on the top of this expenses were incurred in the erection and equipment of new works at Roselands, bringing the total to £145,989, after allowing £7,880 for the sale of the old works and plant. The cost per kilowatt works out at £121, about double what might be anticipated in the case of an entirely new undertaking. In spite of these difficulties, the surplus for the year is £3,858, produced by maintaining the rates charges at a remunerative level—a course fully justified on financial grounds. The costs are by no means out of the way, and show very considerable improvement over those which have hitherto been recorded. The expenditure was covered by the following items :—

	Amount.	Per unit.
Works cost	£5,905	= 1·580d.
Rates, taxes, management, and stamp duty	2,117	= ·566d.
Total cost...	£8,022	= 2·146d.
Public lamp maintenance...	293	= ·078d.
Gross cost	£8,315	= 2·224d.
Dividends on stock	4,327	= 1·158d. } 2·427d.
Sinking fund	4,744	= 1·269d. }
Total actual cost of units sold	£17,386	= 4·651d.
Surplus for year	3,858	= 1·032d.
Revenue in all	£21,244	= 5·683d.

Increased Output in Poplar.

THE East End districts of London have proved to be exceptionally rich fields for the electrical engineer, and it is an astonishing fact that they have shown a more rapid growth than similar areas—so far as size goes—in the higher-class neighbourhoods of the West End. We have already given the results of Stepney and West Ham, and now present a summary of the accounts of the Metropolitan Borough of Poplar to 31st March last, the third complete year of the undertaking, which commenced working in October, 1900. The rapid increase in output is shown by the comparative figures for the past three years.

Year ended 31st March	1902.	1903.	1904.
Private consumers ...	439,611	1,322,447	1,527,557
Public lamps	327,574	465,100	678,840
Total units sold	767,185	1,787,547	2,206,397
Percentage sold to generated	Per cent. 87·7	Per cent. 90·6	Per cent. 89·7
No. of public arc lamps .	185	220	320
No. of public incandescent lamps	1,277	1,530	1,649
Maximum load in 32 watt lamps	16,750	28,500	38,250

A bold attempt has been made to oust gas for street lighting, but it cannot be said that the result is entirely successful. The use of incandescent electric lamps may be favourable to the Council in assisting the output of their works, but some radical alteration in the illuminating agent will have to be effected before the public will be brought to regard the change with favour. This is evidenced by the production of large globe lamps of the Meridian (British Thomson-Houston Co.) and the Whitelight (General Electric Co.) type, by the favour that the Nernst lamp has enjoyed, and the hopes which are centred upon the Mercury vapour lamp of the Cooper-Hewitt and Bastian patterns. Whether the latter, with its pale moonlight effect, will be acceptable to the wayfarer remains to be seen; but the carbon filament lamp has been tried and found wanting. Poplar has not only given the latter an opportunity of practically proving its usefulness, but also ventured upon what appeared to be a promising experiment in erecting some forty Bremer flame arc lamps for street lighting. Unfortunately, this attempt to lead has been shown to be a little before it [illegible] light so [illegible] valuable [illegible] period as [illegible] difficulty.

A Satisfactory Balance-Sheet.

THE results for the year ended 31st March last were as follows :—

Revenue derived from sales of current, &c., amounted to		£25,458
And the working expenditure to		14,671
Leaving a gross profit of		£10,787
Out of this sum the following requirements were met :—		
Interest on loans	£6,331	
Redemption of loans	1,463	
Bad debts	8	
Total of capital and special charges		£7,802
Surplus for year		£2,985

The Rates of Charges.

THE revenue was made up almost wholly of receipts from sale of current, the only items outside this being test fees amounting to £7 and sale of old materials, £135. Meter rents are not charged, except in special cases, but the minimum charged is enforced, a very useful precaution against the reckless placing of a burden on the undertaking by being called to lay service lines without some return therefrom. It will be seen that Poplar received £356 from these minima, which would otherwise have been lost without the consumer appreciating the concession.

The rates of charge are graded to such an extent that it would appear every possible class of consumer has been considered. Lighting is charged at 5d., 4½d., 4d., 3½d., 3d., and 1·8d. per unit; power at 3d., 1½d., 1·8d., and 1·65d. per unit, and the encouragement which the low-power rates have given in an important industrial district is shown by the excess output in this department over the lighting sales, good as these are. 695,502 units were sold for lighting, and 832,055 for power; the street lighting coming out with a consumption almost equal to that for private lighting. In the next table the whole of the private output is taken together. Itemised, it may be noted that 338,902 units at 3d. were sold for lighting, and 239,398 at 5d. per unit, the remainder being spread over the various rates already mentioned. The average for lighting is 3·585d. per unit, and for power 1·716d. per unit. These averages support the argument we have so often brought forward that low rates are the means — if not the only, the principal means—of creating a large demand for electricity, and in a district like Poplar it cannot be denied that it has been due wholly to the cheapness of the supply that it has been popularised to such an extent that in three and a half years the business has been built up until the sales reached over two million two hundred thousand units, with a load-factor of 20·58 per cent.

Receipts and Expenditure.

THE receipts were obtained from the following sources :—

	Units.	Yielding.	Per unit.
Private consumers took ...	1,527,557	£15,719	= 2·470d.
Public lamps consumed ...	678,840	9,232	= 3·264d.
Interim total	2,206,397	£24,951	= 2·714d.
Meter rentals...	—	2	= ·039d.
Minimum charges	—	355	
Fees and goods sold ...	—	142	= ·015d.
Total revenue	2,206,397	£25,450	= 2·768d.
Units used on works ...	170,229		
Total accounted for ...	2,376,626		
Utilised on distribution ...	89,702		
Total units generated ...	2,466,328		

The amount received was taken up and appropriated thus :—

	Amount.	Per unit.
Works cost	£9,100	= ·990d.
Rates, taxes, management, &c.	3,491	= ·379d.
Total cost	£12,591	= 1·369d.
Public lamp maintenance...	2,080	= ·227d.
Gross cost	£14,671	= 1·596d.
Interest on loans	6,331	= ·689d. } ·848d.
Redemption of loans ...	1,463	= ·159d. }
Total actual cost of units sold	£22,465	= 2·444d.
Surplus for year	2,985	= ·324d.
Revenue in all	£25,450	2·768d.

account
bove was

	E... HORNE.	POPLAR.
Lands... ...	—	... £5,125
Buildings	£13,682	 25,427
Machinery	16,435	 43,643
Accumulators ...	4	 2,814
Mains and services...	18,566	 87,037
Tranformers	4,620	 8,895
Meters...	1,937	 3,413
Electrical instruments.	299	 3,443
Public lamps. ...	4,313	 14,781
Change of voltage ..	2,884	... ... —
Cut-outs and meters	1,249	... ... —
Purchase of undertaking	80,870	... ... —
Cost of acquisition .	1,080	... ... —
Various	—	 1,725
Total capital invested ...	...£145,989	... ...£194,301

ST. PANCRAS AND FREE LIBRARIES.

THE ACT ADOPTED.

THE little group of London boroughs which has stood out against the adoption of the Public Libraries Act has been still further reduced by the vote which was taken at a special meeting of the St. Pancras Borough Council last week. As in the case of Islington a few months since, the trend of the elections in November last left no doubt as to the opinion of the electors on the question. All the Progressives were pledged to vote for adoption, and the council hardly needed the exhortations which were addressed to it by a series of deputations. The formal resolution was moved by Mr. T. W. Idris, London County Council, the ex-mayor, who threw out a hint that Mr. Carnegie might be disposed to assist in the provision of the library buildings.

There was the usual plea for delay, Mr. Cox-Sinclair and Mr. E. Barnes asking for a postponement until the ratepayers have had an opportunity of expressing their views. To this it was pointed out that they had already done so by returning a Progressive majority. After an animated discussion it was resolved by a large majority to adopt the Act, and a rate not exceeding one penny in the £.

There have been two ballots on the question in St. Pancras. In June, 1894, 4,574 votes were given in favour of adoption and 6,248 against. In October, 1898, the result was:—In favour, 4,840; against, 8,278. Under the new London Government Act the Acts can be adopted by a borough council without a ballot. Paddington, Marylebone, and Bethnal Green have not yet fallen in line with the other boroughs.

REGISTERED.

FOR INCANDESCENT STREET LIGHTING

BRILLIANT, LASTING, USE GASMI RAMIE THREAD MANTLES SHRINKLESS, UNIFORM.

As supplied to the principal Corporations, Gas Companies, &c., for

LIGHTING THE MAIN STREETS OF THE WORLD.

REMEMBER that we are one of the largest Mantle Manufacturers in the Country, and IT WILL PAY YOU to buy your Mantles from us.

Drop us a Post Card for NEW LIST & PRICES.

J. & W. B. SMITH, 19 to 23, FARRINGDON ROAD, LONDON, E.C.

A. & F. MANUELLE

GRANITE SETTS.

LARGE STOCKS OF ALL SIZES FOR IMMEDIATE DELIVERY.

Also Large Stocks of CURBS, CHANNELS, MACADAM, SIFTINGS, BEDSTONES, TEMPLATES, &c.

Building Work of every description from Architects' and Engineers' Designs.

Chief Office: 57, GRACECHURCH ST., LONDON, E.C.

QUARRIES:—GUERNSEY, ABERDEEN, LEICESTER, IRELAND, NORWAY, & SWEDEN.

Telegraphic Address—"FELDSPAR, LONDON." Telephone Nos. 274, 206 AVENUE.

JERRARD'S (PATENT) AUTOMATIC RAIL CLEANERS

Ensure a Clean Rail, both Groove and Head, at All Times and in All Weathers.

NOW IN USE ON OVER 50 OF THE PRINCIPAL SYSTEMS IN UNITED KINGDOM.

RELIABLE. EFFICIENT. DURABLE.

HAVE STOOD ALL TESTS.

For Particulars as to Price, etc., Apply—

JERRARD'S AUTOMATIC TRACK CLEANERS, LTD., 598, Commercial Road East, London, E.

Or to the Sole Agents for United Kingdom—

BRITISH GRIFFIN CHILLED IRON AND STEEL CO., LTD., 139, Cannon Street, E.C.

TRAMWAY TOPICS.

South Shields will have Nothing to Do with the Trust. Electric Railways to Pierce the Heart of Snowdonia. How the Linking-up Policy is Progressing in Essex. Companies and the Purchase Clauses. Electrification Proceeding at Exeter. Extensions at Dover and Colchester.

WE are glad to see that South Shields remains firm to its decision to have nothing to do with the Trust. After the disclosures that have taken place it could hardly act otherwise. A meeting of the Tramways Committee was held during last week for the purpose of considering what action should be taken in regard to the new system. There were three proposals before the committee—one to take out contracts at once for the laying of the new routes; to delay the whole matter until the expiration of the lease at present held by the British Electric Traction Company over the old lines; or to buy out the British Electric Traction Company. The last proposal was promptly abandoned, and although no definite decision was arrived at, there was a unanimity of opinion that the first-named course was the best one. It was urged that the Corporation should proceed with new lines, and have all that work completed by the time the existing lease expires, in order that there should be a continuity of service.

Other Details.

THE question of the car-sheds was also discussed, and it was agreed that it would be better to proceed with the erection of entirely new car-sheds rather than extend and alter the present premises. It was stated that the available site was altogether inadequate, and a sub-committee was appointed to inspect another, which is already the property of the Corporation, and other sites in the town. The question of proceeding with the work at once was deferred pending the preparation of reports by the town clerk and the sub-committee.

Snowdonia Light Railway.

THE final sanction of the Board of Trade has now been given to the Order under the Light Railways Act for the proposed electric railway from Bettws-y-Coed to the junction with the new Portmadoc and Beddgelert line. The work of constructing the line will be commenced in the course of a few months, but in the meantime much energy is being concentrated upon the section of railway down to Portmadoc, which will probably be finished and opened for traffic by the beginning of next summer. These lines, with others in the district, are the offspring of the North Wales Power Company, which is progressing very rapidly with the building of a new power station. The electrical machinery for this, and the turbines for driving it with water, are in course of manufacture; and the conduits from Llyn Llydaw are being laid. When the schemes now authorised are completed, the heart of Snowdonia will be pierced with electric lines, and it will be possible to travel by car from Carnarvon to Portmadoc.

Electrification at Exeter.

IN connection with the Exeter Municipal Tramways, which are now in process of electrification, the corner stone of a new car-shed and offices was laid on Saturday by the Mayor (Mr. Councillor Perry.) The shed is 182 feet long, and will accommodate 22 cars. It has been erected at a cost of £5,395, and the site was purchased for £1,890. In the course of his speech on the occasion, Mr. Perry said the length of the sections under construction was 3⅜ miles and the single track length 5½ miles, the contract being for £29,227, besides £4,841 for electrical equipment, £6,933 for twelve cars, and £5,395 for the shed, making altogether £47,000, or £54,900 with the £7,900 paid for the horse trams. In the nine months during which the Corporation had run the horse-trams it had carried 414,645 persons, or 7,600 more than the previous owners carried in the whole year; whilst the nine months' fares were £1,730 compared with £1,690 in twelve previously. These figures, relating to an inadequate service, showed the wisdom of electrifying and extending the service.

Extensions at Dover.

AT Tuesday's meeting of the Dover Town Council, the Tramways Committee submitted the surveyor's estimate of the cost of a proposed extension of the municipal electric tramways from Buckland Bridge to Minnis Lane, a distance of just one mile and a quarter. The statement showed a total of £21,000, made up as follows:—Land, £750; permanent way and equipment, £13,892; new cars, £2,400; alterations to cars, £624; paving streets to be formed, £1,394; cost of Provisional Order and legal expenses, £1,500; and contingencies, £440. On the other hand, the general manager reported as to the estimated traffic receipts, the cost of operation, and the capital charges. Putting the number of passengers per annum at 4,268,100, the receipts would be £1,677 12s. 6d., with £80 additional for advertising on the cars—a total of £1,757 12s. 6d. The expenses for operation were put at £1,201 16s., showing a balance of £556. The capital charges per annum to be met are £1,312, representing 7·41d. per car mile. The Council was recommended to take over the Order, apply for the sanction of the Board of Trade, and proceed with the work.

Birmingham Corporation Tramways.

IN connection with the Bill which the Birmingham Corporation is to promote next session the Tramways Committee has prepared a special report, to be submitted to the Council on Tuesday. It states that since submitting the draft Bill approved by the Council it has been deemed advisable to include certain additional properties in Dale End for the purpose of street widenings, necessitating the increase of the sum which it is proposed to borrow by £34,200, and raising the total under the head of purchase of land for street widenings to £202,200. The committee recommends the substitution of this amount for that previously included in the Bill.

Linking-up Suburban Tramways.

AN important extension of the electric tramway system is being made by the Barking Council, which is linking-up through Barking the tramways of East Ham and those of the Ilford District Council. The constructional powers of these tramways were obtained by an Order issued in 1902, but the work has been delayed because it was necessary first to build a bridge over the Roding, widen another over Loxford Water, and make extensive street widenings in order to lay down double lines of rails. A new bridge over the London, Tilbury, and Southend Railway at Barking has yet to be built to take the place of the existing level crossing; but this will only be a matter of a few months, and will not stop the linking, as the trams, until the bridge is finished, will run up to each side of the level crossing. When completed, the Barking tramways will go a long way towards joining up the main suburban systems, making transit from place to place quick and easy. At the West Ham Council, this week, the tramways manager was instructed to confer with East Ham and Barking to ascertain the conditions upon which he could arrange the through running of cars.

Colchester Corporation Tramways.

IT is officially announced that the Mayor, aldermen, and burgesses of the borough of Colchester are about to apply to the Board of Trade for a further Provisional Order under the Tramways Act to construct a tramway wholly [illegible] which i[illegible] in length[illegible]ways in Magda[illegible]an[illegible] to Old Heath Roa[illegible]a siugle [illegible]alf the distance, and d[illegible]ble the rem[illegible] Power is also to be sought to work a[illegible]use the intended tramway, or any of the existing or authorised tramways of the Corporation by "steam, gas, air, electrical, or other mechanical power."

New Lines in the Kingston District.

IT is interesting to learn from a published interview with Mr. J. Clifton Robinson, the manager of the London United Tramways Company, that work is to be commenced almost immediately upon the authorised lines connecting the present system with Kingston, Surbiton, Thames Ditton, Molesey, New Malden, and Wimbledon. This will, it is said, entail an expenditure of £500,000, of which £200,000 will be paid in the shape of wages. Whether Kingston Bridge is to be reconstructed or not is uncertain, but the probability is that it will be widened and strengthened. It is hoped that the work will be completed by the end of 1905.

Companies and the Purchase Clause.

A BILL is to be promoted by the Metropolitan Electric Tramways Company to secure power for the widening of streets and the compulsory purchase of lands in the Edmonton Urban District, and for other purposes. One of the clauses in the proposed Bill is worthy of attention. It will seek "to provide that notwithstanding anything contained in Sec. 43 of the Tramways Act, 1870, or any Act or Order relating to any tramways of the company with or by which that section is incorporated or made applicable, the powers of the local authorities for purchasing the portions of the said tramways within their respective districts shall not be exercised until such time or times and upon such terms and conditions as may have been or may be agreed upon between the company and any such local authority or as may be prescribed or provided for by the intended Act."

Absent-Minded Travellers.

THOSE who have occasion to use tramcars can have little conception of the almost inexhaustible variety of articles of necessity and ornament which are left in the cars by the absent-minded. A sale which took place a day or two since at Cardiff well illustrates this. Umbrellas there were in hundreds. Gloves, walking-sticks, handbags, and books are often unconsidered trifles, and these were plentiful at the sale, but when someone leaves an afternoon tea tray, or a silver watch, or a set of musical instrument "cylinders" behind and never claimed, the case is a hard one to understand. Four trimmers' shovels suggested tired toilers sleeping in a corner of the car suddenly awakened and rushing out without their shovels. "Sundries" there were in basket loads. Here a tiny pair of baby's shoes peeping behind a lady's fur boa; there a labourer's muffler. A plumber's roll of lead piping was one of the strange things forgotten in the tramcar. A pair of pince-nez glasses may have been accidentally dropped, but what about ballroom slippers and an exquisite hair brush?

New Cars for West Ham.

THE Electric Tramways Committee of the West Ham Corporation is about to purchase 35 new cars. Seven tenders were submitted to its consideration from the following firms:—The Brush Electrical Engineering Company, Limited, Loughborough, £528 10s.; Witting, Eborall and Co., Limited, London (Tender B), £542 15s.; Hurst, Nelson and Co., Limited, Motherwell, £547; the British Westinghouse Company, Limited, Manchester, £552 15s.; Witting, Eborall and Co., Limited London (Tender A), £555 17s.; the British Thompson-Houston Company, Limited, Rugby, £575 15s.; Dick, Kerr and Co., Limited, London and Preston, £582. After careful consideration of the various tenders the

...accept ...o. Engi... ...dies at ...3280 e... ...mounted on radia... ...d equip... ...Raworth regenerat... ...trol syste... £623 10s.; Messrs. ... ...err and Co., Limited, 34 electrical equipments mounted on 21 McGuire trucks at £258 10s. The recommendation was adopted by the Council.

The Glasgow and Paisley Dispute.

IN connection with the dispute between the Glasgow Corporation Tramways Committee and the Paisley Tramways Company, as to the question of the former running its cars over the latter's lines, Lord Balfour of Burleigh has just issued his award as arbitrator on the subject of fares, compensation, and expenses. The award is as follows:—

(1) The Tramways Company to receive £250 from Glasgow Corporation on 1st December, 1904, for constructing the siding.
(2) Corporation to pay the company whole fare received from local passengers, and two-thirds of a penny for each "through" passenger.
(3) Corporation to receive from company 3 1-3d. per car mile for working expenses.
(4) Extra expense of checking tickets, &c., to be borne equally.
(5) Award to last till 31st December, 1914.
(6) Expenses incidental to the arbitration (i.e., arbiter's and clerk's fees, &c.) to be borne equally, and *quoad ultra* each party to pay its own expenses.

It is further stated that to the sum of 3 1-3d. which will be allowed to the Corporation for working expenses there will, of course, fall to be added the cost of the electric current, which is supplied by the Paisley Town Council, and about the cost of which there can be no dispute.

Extensions in Glasgow.

MR. JAMES DALRYMPLE, the new manager of the Glasgow Corporation tramways, has, with the consent of his committee, decided to proceed at once with the construction of the extension from Pollokshaws East to Giffnock, the object being to provide employment for between 80 and 100 men, and to that extent relieve the prevalent distress. The work will be done direct by the department, as has been sometimes the case on previous occasions. Usually such work is only undertaken in open weather, and owing to the hardness of the ground it will be more costly at this season of the year. The men will be paid the standard rate of wages. At the relief works at Provan 130 men are engaged.

Social Amenities.

THE first of a series of smoking concerts in connection with the West Ham Corporation Social and Athletic Club has just been held at the Langthorne Rooms. Mr. H. E. Blain, the tramways manager, presided, and there was a large attendance of such members of the staff as were off duty. The Chairman, in a short address, reminded the employés of their responsibilities to the service and the public, and said that it was only by the combined efforts of all concerned that real efficiency could be attained. A second concert of an equally successful character was held last Wednesday for those who, being on duty, were unable to be present at the first.

MUNICIPAL ELECTRIC TRAMWAY RETURNS.

Undertaking.	Date of Opening.	Length of Route.	Total Length Track.	Year ends.	Last Weekly Return.		Corresponding Week 1903.		Total Receipts for Year.	
		Miles	Miles		Receipts.	Passengers.	Receipts.	Passengers.	1904.	1903
Aberdeen	Dec. '99	2·50	5	May 31	1,024	—	1,076	—	38,489	32,750
Ayr	Sept. '01	6	8	—	162	49.179	170	49,977	9,952	9,458
Birkenhead	Feb. '01	13·52	23·53	March 31	874	182,687	973	203,444	36,606	37,140
Blackburn	Mch. '99	13½	13½	March 25	707	133,724	700	128,537	33,416	30,120
Blackpool	Oct. '84	3	6	March 31	279	—	286	—	42,100	36,187
Bolton	Nov. '99	25	35	March 31	1,576	349,414	1,685	369,278	64,949	64,579
Bonrnemouth	July '02	11·8	18·2	March 31	742	139,582	778	143,739	53,445	17,637
Bradford	July '98	53¾	95½	March 31	3,715	—	3,407	—	155,299	129,051
Brighton	Nov. '01	6·5	11·75	—	669	151,457	734	176,324	—	—
Burnley	Mch. '02	10·60	10·60	March 31	912	171,021	751	135,808	—	—
Cardiff	Dec. '01	16	30	March 31	—	—	—	—	—	—
Darwen	Oct. '00	4·5	4·25	Dec. 31	—	—	—	—	—	—
Dover	Sept. '97	3·5	4·5	March 31	146	37,518	157	40,782	8,136	8,308
Dundee	July '00	12·56	23·1	March 31	—	—	—	—	—	—
East Ham	June '01	6·6	10·75	March 31	547	207,885	583	225,987	25,274	23,852
Glasgow	Oct. '98; Extens., April '01	71½	143	May 31	12,770	3,371,237	13,159	3,527,254	372,101	352,321
Halifax	—	—			2,625	630,000	2,352	564,480	68,008	61,151
Huddersfield	Feb. '01	—	32	March 31	—	—	—	—	—	—
Hull	July '99	9·5	18·5	March 31	2,042	490,277	1,825	438,009	75,501	65,667
Ilford	Mar., '03	6·5	10·5	—	322	85,823	327	—	16,252	15,555
Ilkeston	May, '03	3·5	4	—	97	25,230	126	32,459	—	—
Leeds	Aug. '97	37	71	March 25	4,970	—	4,872	—	204,736	193,066
Liverpool	Nov. '98; June '99	66	114	Dec. 31	10,075	2,190,353	9,465	2,049,192	487,906	473,875
L.C.C. *	1897, Jan. '99	—	47¼	March 31	12,836	—	9,764	—	417,611	328,357
Manchester	June '01	72	131·50	March 31	10,420	2,146,869	10,969	2,263,768	422,291	404,739
Nelson	Mch. '02	2·75	3·5	—	97	29,910	83	24,800	—	—
Newcastle	Dec. '01	17	36	—	3,429	783,620	3,426	759,254	—	—
Oldham	Dec. '00	18	28	—	1,328	270,546	1,087	239,860	40,178	39,657
Portsmouth	Sept. '01	15	28	—	1,229	267,770	1,291	283,642	70,400	64,788
Reading	July '03	7½	13⅛	—	566	130,292	525	123,330	—	—
Rotherham	Jan. '03	7⅜	—	March 25	387	88,554	419	94,607	16,153	13,631
Salford	Oct. '01	32½	59½	March 31	3,322	640,791	4,021	—	142,136	134,576
Sheffield	Sept. '99	32½	59½	March 25	4,094	1,087,254	4,259	1,127,906	164,661	161,586
Southampton	Sept. '98	9⅜	16⅜	March 31	780	147,244	848	165,046	34,477	36,673
Southend-on-Sea	July '01	6·85	—	March 31	—	—	—	—		
Sunderland	July '00	12·27	23	—	1,063	—	970	—	44,547	43,605
Wallasey	Mch. '02	9	10·5	March 31	585	111,933	571	110,423	26,531	24,851
Walsall	—	—	—	—	400	72,685	—	—	22,694	—
West Ham	Feb. '04	9·78	12·98	—	970	283,883	—	—	36,797	—
Wolverhampton	April '02	11·258	16·848	March 31	629	135,363	384	82,088	—	—

* Also includes the horse lines.

NON-PROVIDENT SCHOOLS.

THE Durham Education Committee has reported as follows:—"We have taken the opinion of Mr. W. S. Robson, K.C., M.P., on the following questions:—(1) In cases where non-provided schools were deficient in furniture and fittings either in quantity, quality, or kind on the appointed day is it obligatory on the local education authority to purchase the furniture, &c., necessary to make them efficient? (2) In the case of newly-erected non-provided schools or extensions of old schools, does the obligation of the local education authority to "maintain" the school carry with it the obligation to bear the initial expense of furnishing and fitting-up the new school or the enlargement, or only to make good the damage to furniture, &c., due to fair wear and tear? (3) If not, are the local education authority at all liable for the purchase of new furniture or things in non-provided schools? And he has advised us as follows:—(1) Yes. The local education authority is bound to maintain and keep efficient all public elementary schools within their area, and the school cannot be maintained or kept efficient without furniture. In the extreme case of a school being so destitute of furniture as to be unable on the appointed day to earn a grant, it would then be the duty of the Board of Education to decide (on the application of the local authority) that it was not a public elementary school, and need not be taken over. (2) and (3) The answer to these questions is suggested by the foregoing answer. The local authority is only bound to take over schools which can be properly described as public elementary schools. The Act of 1870, Sec. 7, defines a public elementary school as a school carried on according to the regulations therein prescribed, one of which (Sub-section 4) is that it shall be conducted so as to be capable of earning a Parliamentary grant, and according to the code such a school must be properly provided with furniture to the satisfaction of the department. Unless, therefore, a newly-erected non-provided school be furnished, it would be the duty of the Board not to allow it a status as a public elementary school, but once it is furnished, the furniture must be maintained, and replaced as may be necessary, by the local authority."

DICK, KERR & Co., LIMITED,
ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Contractors for Municipal Lighting and Tramway Schemes.

Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.
Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

MUNS 49

THE MUNICIPAL JOURNAL

No. 619.—Vol. XIII. FRIDAY, DEC. 9, 1904. REGISTERED AT THE G.P.O. AS A NEWSPAPER. ONE PENNY.

Official Advertisements.

BOROUGH OF SOUTHWARK.

SANITARY INSPECTOR.

THE Council are about to appoint a SANITARY INSPECTOR, at a salary of £120 per annum, rising £10 per annum, on approved service, to a maximum of £180 per annum

The appointment will be subject to the approval of the Local Government Board, and in accordance with the Public Health (London) Act, 1891, and the General Orders of the Local Government Board.

Candidates must be holders of a certificate from the Sanitary Institute prior to December, 1898, or from the Sanitary Inspectors' Examination Board since that date, and be competent by their knowledge and experience to perform the duties of the office, and the person appointed is to devote the whole of his time to the performance of the duties prescribed.

The officer will be appointed to the district known as St. Peter's district or such other ward as the authority, with consent of the Local Government Board, may determine, and will be required to reside within the borough.

The appointment will be made on the understanding that there will be no pension or superannuation allowance.

Forms of application can be had any day at the Town Hall, Walworth Road, S.E.

Applications on the prescribed forms, accompanied by not more than three recent testimonials, and endorsed "Sanitary Inspector," must be sent to me not later than noon on Monday, January 2nd, 1905.

The Council will proceed to make the appointment on January 18th, 1905.

J. A. JOHNSON,
Town Clerk.

Town Hall, Walworth Road, S.E.
2nd December, 1904.

POPLAR UNION.

POTATOES.

THE Guardians of the above-named Union will, at their Meeting to be held on the 14th December next, proceed to consider TENDERS for the SUPPLY of POTATOES
for period ended at Midsummer next.

Printed forms of tender, which alone can be received, containing full particulars and conditions, and estimates of quantities required, may be obtained on personal application at my office, or by forwarding to me an addressed envelope, foolscap size, duly stamped.

Sealed tenders must be delivered at the Clerk's Office, Upper North Street, not later than 6.30 p.m. on Wednesday, the 14th December.

The party whose tender is accepted will be informed thereof by letter.

G. HERBERT LOUGH,
Clerk to the Guardians.

Union Offices.
45, Upper North Street, Poplar, E.,
December, 1904

Official Advertisements.

PARISH OF SAINT LEONARD, SHOREDITCH.

CONTRACTS FOR SUPPLIES.

THE Guardians of the Poor of the above-named Parish will meet at the Board Room, 204, Hoxton Street, N., on Wednesday, the 14th day of December, 1904, at 5.30 o'clock in the afternoon precisely to receive TENDERS from persons willing to CONTRACT to SUPPLY them with such Butcher's Meat, Cheesemongery, Coal, Cornchandlery, Fish, Flour, Grocery, Potatoes, and Vegetables and Tea at 1s. 5d. per lb. (samples of the last-named are required on or before the 12th December) as may be ordered for the use of their various establishments from the 31st day of December, 1904, to the 25th day of March, 1905, both days inclusive.

Payment for Butcher's Meat, Coal and Flour will be made monthly.

Forms of tender and contract may be obtained at my Office as under.

By order.
ROBERT CLAY,
Clerk to the Guardians.

Clerk's Office,
213, Kingsland Road.
30th November, 1904.

CITY OF BRADFORD.

DEPUTY TOWN CLERK AND CHIEF ASSISTANT SOLICITOR.

THE Bradford Corporation invite Applications from duly qualified solicitors for the above position. Candidates must be thoroughly experienced in local government law and practice, and have an intimate knowledge of the work of a town clerk's (or equivalent) department in a large district, including conveyanciug and common law, and must also be fully competent to act as advocate in conducting important cases before magistrates. &c.

The salary (subject to approved service) will be £500 per annum, with annual increments of £50 to a maximum of £750.

Applications (endorsed "Deputy Town Clerk"), stating age, and setting out the candidate's career and experience, with copies of three recent testimonials, to be sent so as to reach me not later than first post on Wednesday, the 21st inst.

Canvassing in any form by, or on behalf of any candidate, will disqualify, but candidates may send a copy of their application and testimonials to the members of the selection committee (list can be obtained on application at my office), and selected candidates may subsequently send such copies to the other members of the council.

FREDERICK STEVENS,
Town Clerk.

Town Hall, Bradford.
3rd December, 1904.

PROMOTION impossible without good Penmanship. Rapid tuition. Particulars for stamp. N. Broadbent (Prizeman and Medallist), Alston's College, Burnley.

Official Advertisements

CITY OF YORK.

LEASE OF TOLLS OF SKELDERGATE BRIDGE.

THE Corporation of York give notice that the TOLLS of and appurtenant to SKELDERGATE BRIDGE, YORK, together with the TOLL-HOUSE erected thereon, will be LET by Public TENDER for the term of three years from the 1st day of January, 1905.

The lease will be granted subject to the lessee contracting with such foot passengers as may desire it for a composition not exceeding threepence each person per week in lieu of the usual toll.

The Corporation will retain the statutory power and duty of opening and closing the bridge for purposes of the River Ouse navigation, and the lease will be granted subject to the obligation of opening the bridge for the purposes referred to during the periods prescribed by the Bridge Act, and at such other times as the Corporation may from time to time require, and to the right of the Corporation and its officers, servants, and workmen to enter at all times upon the bridge and toll-house for purposes connected with such opening and otherwise free of toll.

The lessee will be required to pay the rent in advance by equal monthly instalments, and to find sufficient sureties for the due payment of the same, and the performance of the covenants and agreements to be contained in the lease, and also to pay all rates, taxes, and other outgoings in respect of the bridge, toll-house, tolls, and premises over and above his rent.

The draft of the lease and schedule of tolls to be taken may be inspected at the Town Clerk's Office, Guildhall, and further information may be obtained there.

Sealed tenders or proposals, with the names and addresses of the proposed sureties, to be sent to the Town Clerk's Office, Guildhall, York, not later than 10 o'clock in the forenoon of Thursday, the 15th December, 1904, endorsed "Tender for Bridge Tolls" on the outside.

The highest or any tender will not necessarily be accepted.

By order.
R. PERCY DALE,
Town Clerk.

York.
30th November, 1904.

TENDERS FOR CONTRACTS, &c.—Official advertisements respecting works, supplies, &c., should always be sent for insertion in the MUNICIPAL JOURNAL, as its columns are constantly referred to by Contractors to Public Bodies, and the paper is generally recognised as the best medium for the purpose, its extensive circulation amongst those interested in public tenders ensuring the widespread publicity desired by County Councils, Corporations, District Councils, Boards of Guardians, &c. when inviting tenders for contracts of any kind.

(Official Adverts. continued on page 990).

WILL JENKINS

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

All these Books are Bound (Cloth Boards) in

Two Volumes,

Containing 880 Pages 12" by 10" (54 in Lithography), and with our No. 27 Tariff.

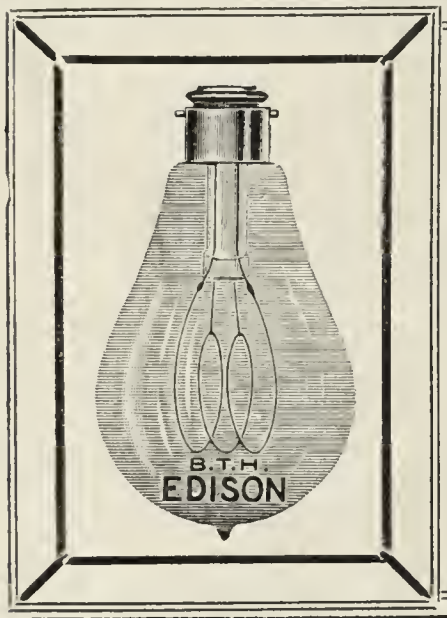
Form one of the most Practical Up-to-date Guides to Purchasers of all kinds of Builders' and Sanitary Engineers' Goods yet issued.

We will send them **Carriage Paid,** to ARCHITECTS, ENGINEERS, and SURVEYORS upon receipt of bona-fide applications.

Please mention this Journal when applying.

YOUNG & MARTEN, LTD.

CALEDONIAN WORKS. **STRATFORD,** LONDON, ENGLAND.



MAY WE

send you our new illustrated booklet (No. 163 M.J.) on incandescent electric lamps. It describes clearly why it is more satisfactory and economical to use

B.T.H. EDISON

ELECTRIC LAMPS

than other makes, besides containing useful information to users of electric light.

THE B.T.H. CO., Ltd., RUGBY.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

IN PREPARATION,

The MUNICIPAL YEAR BOOK, 1905.

OFFICIALLY REVISED—IMPROVED AND EXTENDED.

INVALUABLE TO COUNCILLORS & OFFICIALS.

EDWARD LLOYD, Limited, 12, SALISBURY SQUARE, LONDON, E.C.

BAKER'S

PATENT REFUSE DESTRUCTORS

Important New Features In Sanitation. Complete Destruction of Gases.
Highest Efficiency for Heat and Power.
Large Storage Capacity. Mechanical Conveyance and Cooling of Clinker.
Abolition of Nuisance. Special Treatment of Dead Animals and Offal.
Labour and Cost of Working Reduced to a Minimum.

JOSEPH BAKER and SONS, Limited,
ENGINEERS,
WILLESDEN JUNCTION, LONDON, N.W.

REGISTERED OFFICES—
58, CITY ROAD, LONDON, E.C.

BRANCHES { 345, Flinders Lane, Melbourne, Australia.
92, Alfred Street, Brantford, Canada.

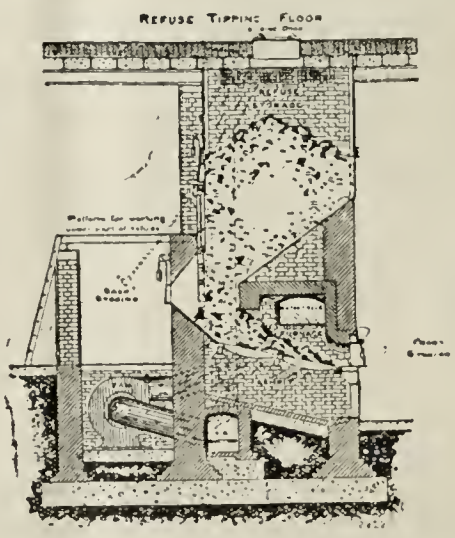


ILLUSTRATION of BAKER'S PATENT DESTRUCTOR.
With Enlarged Storage Drying Hopper.

THE MUNICIPAL JOURNAL
ESTABLISHED AS "LONDON." TWELFTH YEAR OF ISSUE.

No. 619.—Vol. XIII. DECEMBER 9, 1904.

MUNICIPAL TELEPHONY.

Hull is the Sixth City in the Kingdom to Establish a Municipal Telephone System. The Encouraging Attitude of Would-Be Subscribers. Negotiations with the National Telephone Company, and Reasonable Offers Refused. Two Thousand Lines Provided. A Glance at the Work Carried Out. Other Towns and Cities Contemplating Municipal Undertakings.

ANOTHER interesting chapter in the history of municipal telephony has been written by the Hull Corporation, which last week brought to a completion and formally opened what promises to be a system of the greatest benefit to the inhabitants of that busy city, in which municipal enterprise has been greatly developed on progressive lines.

CENTRAL EXCHANGE SWITCHBOARD.

Tramways, baths, electric lighting, docks, cemeteries, markets, free libraries, and even a crematorium are in the hands of the Corporation, which has also a very large interest in the Hull and Barnsley Railway, and it is estimated that the value of municipal property in and about the city is over a million and a half, or considerably in excess of the rateable value. In a progressive city of this description the provision of a municipal telephone system seemed a natural corollary, but it has taken something like five years to arrange for and develop the service which is now in operation.

The story of the undertaking commences in 1899. At that time the National Telephone Company was in sole possession, and in Hull, as in other parts of the country, there was a great deal of dissatisfaction caused by the heavy charges which the company made, and other alleged shortcomings of the service. This induced a number of the leading merchants to petition the Corporation, and to pray that it would come to their assistance with a municipal system. This was towards the end of the year, and during the session of Parliament just then closed an Act had been passed (the Telegraph Act, 1899) which enabled municipalities, in the public interests, to establish and work competitive telephone services in their areas.

The outcome of this was the appointment by the Council of a Telephones Committee. This committee, having consulted Mr. A. R. Bennett, M.I.E.E., and after careful inquiry, came to the conclusion that the establishment of a municipal system was desirable. This conclusion was endorsed by the Council as a whole, and steps were taken to carry it into practical effect. Before, however any formal proceedings were entered upon, tradesmen and likely subscribers were circularised and canvassed so as to make certain that a sufficient number of persons was prepared to avail themselves of a corporation service at the rates offered. The answers were in every way satisfactory, and, in addition, resolutions in favour of the scheme were passed by the Chamber of Commerce, the Chamber of Trade, the Hull Guardian Society, and other bodies.

CENTRAL EXCHANGE.

The first step was to apply to the Postmaster-General for the necessary licence. This application was, of course, opposed by the National Telephone Company, but, in spite of this, the licence was granted in August, 1902. Armed with this, the Corporation sought to come to some arrangement with the company, in order, if possible, to save the laying down of a duplicate system. An endeavour was made to purchase the company's undertaking in the city, but the lowest price required would have precluded the Corporation from giving a cheaper supply, and no

satisfactory arrangement for purchase could be arrived at. Negotiations for purchase having been unsuccessful, efforts were made to arrange with the company for a substantial reduction in its rates, on condition that the Corporation did not enter into competition. These were again unsuccessful, the company being bound by an agreement with other towns in which a reduction would also have to be made if any occurred at Hull.

These negotiations necessarily occupied a considerable period, and caused a delay in carrying out the work; but the Corporation felt it would not be justified in going to the cost of laying down a duplicate system until it had exhausted every effort to avoid it by obtaining satisfactory terms from the existing company. One result was, however, obtained, an arrangement by which Corporation subscribers were to have free intercommunication with those of the company in Hull and other towns.

Having decided upon the provision of a municipal system, the Corporation applied to the Local Government Board for the sanction of that authority to a loan of £43,202, the estimated cost of the undertaking. The usual official inquiry was held, and the case presented on behalf of the Corporation seems to have satisfied the Inspector and the Board, for in a short time the sanction was formally given.

In the matter of a Central Exchange, the Corporation was fortunate in having at its disposal a building which was easily adaptable to the purpose. This was the Trippett Baths, which had become out-of-date and had been closed, and its utilisation not only provided a site but removed a charge upon the rates.

The necessary plant and equipment having been purchased, and contracts entered into, work was commenced in January of the present year, Mr. Thomas Holme, A.M.I.E.E., being appointed as manager. The operations were carried on with expedition, and although the formal opening was only last week, some of the connections were previously at work.

ALDERMAN F. LARARD
(Mayor of Hull).

COUNCILLOR J. BROWN
(Chairman Telephone Committee).

MR. A. R. BENNETT
(Consulting Engineer).

MR. E. LAVERACK
(Town Clerk).

MR. T. HOLME, A.M.I.E.E.
(Telephone Manager).

Nineteen miles of trenching have been excavated in the streets, wherein has been laid 33 miles of stoneware ducts, which contain 4,910 miles of copper wire. All the lines in the city are laid underground with the exception of those brought up and distributed to consumers in the particular neighbourhoods. At the central exchange, where the alterations have been carried out under the supervision of the city architect, the switchboard, with its quarter of a million soldered joints, is of the latest pattern, with all modern improvements. It has accommodation for 2,000 subscribers, which can be extended to an ultimate capacity of 5,000. Sections are set apart for intercommunication and for the trunk lines. The system, which is a silent one, is invaluable, particularly for trunk line messages to other towns—a very important matter in a city like Hull. A district exchange has been opened at Hessle, and others will shortly follow at Cottingham and Beverley. At the central nearly the whole of the 2,000 lines provided are represented by orders, and it is probable that an extension will be required in a very short time.

The tariff arranged by the Corporation is as follows:—

Exclusive line, unlimited use for business premises, £6 6s. per annum; second connection, £5 15s. Special quotations for large users.

Exclusive line, unlimited use, £5 per annum for private houses.

Exclusive line, toll rate £3 per annum, and 1d. per outward calls; all inward calls free.

Extension instrument in the same building as Exchange line, £1 per annum. Desk sets, 5s. per annum extra.

Against this tariff the National Telephone Company maintains its charges of £10 per annum for instruments for business purposes, but for a service limited to a certain number of calls the tariff is £5. In other municipal undertakings the tariff for an unlimited service is £5 5s. in Glasgow, £5 10s. in Brighton, £5 17s. 6d. in Portsmouth, £5 in Swansea, and £5 in Guernsey (for 3,200 calls). The Hull tariff is higher than any of these, but, as Councillor Brown, chairman of the Telephone Committee, pointed out at the opening ceremony, the flat rate of £6 6s. per annum had been given because the Corporation wanted to be on the safe side. It is satisfactory to note, also, that three-fourths of the subscribers are on the six-guinea rate, which shows that the man who had been called upon to pay £10 to the National Telephone Company is one who appreciates the relief afforded by the municipal service. It is a curious fact that the Chamber of Commerce, which was among the original 800 petitioners for a better and cheaper service, has not yet adopted it.

The contractors for the work were Messrs. Henley, Limited, and the Ericsson-Bell Company, and a noteworthy feature in connection with the business is the fact that the contract was completed three months before the time limit. Mr. A. R. Bennett, the consulting engineer, has had the supervision of the undertaking, and that gentleman has the satisfaction of knowing that in spite of certain criticisms which were passed upon his estimates the latter have been in excess of the contract price.

Hull is the sixth town of importance in the kingdom to adopt a municipal system of telephony, but one of these (Tunbridge Wells) has since sold its undertaking to the company. The others are Glasgow, with a surplus last year of £2,092, Portsmouth, Swansea, and Brighton. Manchester, Salford, and Stockport, are arranging for a joint municipal service. Guernsey has also an efficient system, and likely followers are Scarborough, Cambridge, Bournemouth, Belfast, Oldham, Burnley, Aberdeen, and Barrow-in-Furness.

INCORPORATED ACCOUNTANTS AT CARDIFF.

ON Friday, the 25th ult., a banquet of Incorporated Accountants and their guests, members of other professions, took place at the Park Hotel, Cardiff.

On the following Monday a lecture was delivered at the Y.M.C.A. Rooms, Cardiff, by Mr. Fred. J. Warren, F.S.A.A., incorporated accountant and borough accountant of Haverfordwest. The subject was "Municipal Accountancy." There was a good appreciative attendance. The speaker exemplified the effect of charging depreciation as well as loan repayments against the revenue of the trading undertakings of corporations, showing that it overburdened the undertakings unfairly, as the loan instalments should be sufficient in themselves to cover every question of depreciation.

It should be clearly understood by outsiders that the depreciation of the assets of such undertakings during the lives of the assets is *prevented* by the wear and tear, &c., on such assets being made good annually out of revenue.

"MUNICIPAL OCTROI."

Glasgow's Much-Discussed Tax on Market Commodities. What It Means and What Has Led Up to It. The Principle of Representative Government and Sound Municipal Finance. The Substitution of a Market Toll for Market Rent.

"GLASGOW, the most progressive municipality in the kingdom, is contemplating a return to the Middle Ages in its commercial regulations." "The French octroi system is to be established, and food entering the city's limits will be taxed, to the ruin of the merchants, and to the detriment of the population." These are some of the cries that have been raised in certain sections of the Press and elsewhere during the week.

What are the facts? On Wednesday the Corporation met to consider the promotion of a Provisional Order, Part III. of which provides for the adoption of the Markets and Fairs Clauses Act, 1847, and the transfer of all the wholesale markets within the city to the Corporation. Increased borrowing powers to the extent of £250,000 are sought for the purposes of the Order, and provision is made for the levying of rates, tolls, dues, and stallages in terms of a schedule annexed to the Order.

The Proposed Changes.

According to this schedule, the rents in the bazaar will be for compartments on the ground level per square foot per month, 1d.; above the ground level, 4d.; on the ground level, 7d.; or *tolls may be levied* varying from ½d. for each package containing less than 84lb. gross to 4d. for packages of 7½cwt. and over.

> Baskets, hampers, &c., containing under a bushel will be charged ½d., over a bushel 1d., and similar charges on other articles are authorised. For vegetables the charge will be:—Potatoes in bags of 9 stones and under, ½d.: exceeding 9 stones, but not exceeding 18, 1d.: carrots, turnips, and other vegetables in like proportion. For flowers, roots, and plants, &c., there will be charges varying from ½d. for each fruit tree to 1½d. for pot plants packed in a case, or otherwise every six. In the cheese market the rate will be 3d. per cwt., and additional rates of from ¾d. to 1½d. per cwt., according to the time the cheese is left in the market. In the Clothes Market the rents exigible will be 5s. for each compartment or stance per week, and for each store 1s. per day. A toll of 2d. for each parcel carried will be charged on every person entering the market with clothing for the purpose of selling the same to dealers, and every dealer entering the market to purchase only will be charged 6d. per day. In lieu of the above rents, tolls of from ½d. to 2d. may be levied on each article sold. For a stance in the market for the sale of birds, dogs, &c., the rent will be 3s. per week. A toll of ½d. will be charged for each bird, animal, or article taken to the market for sale.

Crush an Anomaly.

One of the principal markets in the city is the bazaar, to complete extensions and alterations of which—now in progress—probably £80,000 or £100,000 will have to be advanced out of the Common Good.

It is argued that markets required in the interest of the whole community should be carried on under statutory authority as municipal undertakings. If they are not so required—if it is not for the advantage of the public at large to have such markets available—and they are merely kept up for the convenience of the traders who use them, the question arises whether the Corporation is justified in carrying them on. Why should not these traders be left to provide markets for themselves, as other traders and merchants in the city do? But, in particular, why should the funds of the Common Good be employed to further the interests of a small section of the community?

Wasting Public Money.

The money so spent might be a good investment if the Corporation were sure that the markets would be fully used. At present the money is being advanced without adequate security, as there is no guarantee whatever that the stance-holders may not leave the market and sell outside whenever it suits them better to do so. If these markets became Parliamentary markets, and were placed under the Markets and Fairs Clauses Act, 1847, as proposed, they would be protected as follows:—

> Should any person other than a licensed hawker sell or expose for sale elsewhere than in the statutory markets, except in his own house or shop, any articles upon which tolls are by the special Act authorised to be taken in the market, he shall for every such offence be liable to a penalty not exceeding forty shillings.

When these markets were established, municipal enterprise was in its infancy, and the methods familiar to-day were practically unknown. Had the Corporation now for the first time to provide a market for the sale of fruit, cheese, &c., it would never think of doing so except under Parliamentary authority, with borrowing powers, provision for sinking fund, &c. In short, the undertaking would be put on a proper business footing.

The bazaar was established in 1836. It is not separately valued in the books, but is included in a lump sum applicable to the bazaar, City Hall, and adjacent properties. There is no sinking fund, nor any equivalent arrangement for paying off debt, while the indebtedness to the Common Good is always increasing. In 1888 the bazaar (site and buildings) was valued at £83,000, but the nett return received from it during the last 10 years has only been on an average £2,602 per annum, or equal to £3 2s. 8d. per cent. on valuation.

What has been stated regarding the bazaar applies generally, although in a less degree, to the minor markets, except that these latter have hitherto yielded a better return on the money invested in them. The Old Clothes Market, which stands in the books at £27,500, was opened in 1875, and the Bird and Dog Market, which is valued at £4,000, in 1876.

Paying Authority No Voice.

Apart from the considerations stated, it is pointed out that the Finance Committee of the Corporation, which is charged with the administration of the Common Good, has no voice as a committee in the management of these markets. It is true the proceedings of the Bazaar Committee are subject to the review of the Corporation, but no effective control can be exercised except in committee. The Bazaar Committee spends the money, but keeps no separate accounts, and takes no financial responsibility whatsoever, while the Corporation Finance Committee provides the funds, but has no control over the expenditure.

It is submitted that these markets, if they require to be maintained, should be put on a proper municipal basis; that the committee which manages them should have all the authority and responsibility which the other committees in charge of municipal undertakings possess; that the Common Good should be relieved of the burden of providing funds for these undertakings; and that the money required to take them over be provided by the loans fund.

The Edinburgh Corporation has, in the Edinburgh Markets and Customs Act, 1874, statutory powers in connection with its fruit and vegetable market. The Corporation received power to bestow a sum for covering and otherwise improving the then existing market, and it also obtained power to levy the rates specified in the schedule annexed to the Act.

Protection under Local Act.

In order that the Corporation, in connection with the markets under the administration of the Markets Department, should receive the protection provided in the Markets and Fairs Clauses Act, 1847, any application to be made to Parliament should include the repeal of Sec. 52 of the Glasgow Markets and Slaughterhouses Act, 1865, which provides that

> every person who shall sell or expose to sale any cattle or any horse, mule, or ass *in any public place* within the limits of this Act, or within three miles of the Cross of Glasgow, except in the market-places established or to be established, shall be liable to certain specified penalties . . . provided always that none of the penalties shall extend to . . . any private sale thereof in private premises, or to any sale thereof in such premises by a licensed auctioneer.

It should be pointed out that some years ago counsel advised that the Corporation had no power under its local Acts to put a stop to sales of cattle, &c., in private premises outside its own markets. If, however, the provisions of the local Act were repealed, and the provisions of the Act of 1847 stood alone, the powers possessed by the Corporation would be much wider, and, according to decisions given in a number of English cases, would enable the Corporation to prohibit a great many sales carried on in premises which cannot be regarded as a "dwelling place or shop" of the person conducting the sale.

Years of Consideration.

This much-discussed clause in the proposed Provisional Order has been put forward with no guilty haste. The case has a history.

The markets owned by the Corporation are six in number, three of which are now statutory markets, but at one time, in common with the other three, they belonged to the magistrates and the Corporation, and formed part of the Common Good of the burgh. An Act of George III. specifies, *inter alia*, the dues to be levied in order to indemnify the magistrates and Town Council for their outlay in erecting the markets, and empowers a penalty to be exacted from persons selling cattle, &c., in the public streets. By a later Act slaughtering of animals in any other than a public slaughter-house is prohibited under special penalties. These and many more facts have been brought out and local Acts dissected since 1900, when a special committee was appointed by the Corporation to report on the position. This committee reported last year strongly in favour of the Corporation receiving the protection provided in the Markets and Fairs Clauses Acts, 1847, and also that "it is desirable that the Bazaar should be constituted a statutory undertaking."

The extraordinary divergence of opinion as to what are the real nature and force of the proposals is shown by the following report of the discussion which took place at the Glasgow City Council meeting on Wednesday, when the provisions for the imposition of rates were remitted to a committee for further consideration:—

> Mr. Gray, conveuer of the Parliamentary Bills Committee, moved the approval of the clauses of the order dealing with the markets. The scale of charges in their markets they proposed, he said, should only be sufficient to meet interest on the necessary expenditure and sinking fund. A little anxiety had been shown about the phrase "rates and tolls." Some members thought that this might mean tolls. The phrase, however, meant that the present state of things should continue. Some seemed to suppose that they wished to impose petty Customs duties. There was no proposal to do anything of the kind. He had heard it said that a lot of money would be exacted from fruit merchants in various ways. Nothing of the kind.
>
> Mr. Alexander Murray seconded the motion. A good deal had been made, he said, of the schedule of tolls or dues which was attached to the draft Provisional Order, and it had been made to appear that this was an attempt to levy dues on every parcel of fruit coming into the city. There was nothing in the Bill to enable the Corporation to levy tolls in the way suggested. It was inteuded rather to follow up those who sought to evade the market, who sought to take advantage of the market to dispose of goods without being in the market or without paying any rent whatever to the Corporation. It was iutended to follow them up, not by exacting dues, but by exacting a penalty not exceeding 40s. for each offence.
>
> Bailie Burrell moved that the Order be sent back for further consideration. Of all the proposals that had ever been put before the Council, he said, this was one of the most remarkable. It was simply that a charge should be put on every package of fruit or vegetables, or every suit of old clothes sold in their markets or in any other market in the city.

It was agreed to approve of the Order, so far as it provided for the transfer of the markets from the Common Good to the Markets Committee.

The Corporation wishes to bring about a change that will place its municipal markets upon sound business lines, but whether this and the general good of the public are best secured by taxing commodities is a question which we are surprised should have been even considered by so Progressive a Corporation as that of Glasgow.

THE Oswestry Town Council has instructed its town clerk to oppose the application of the Tanat Valley Light Railway Company for an order to postpone the mortgage of the Oswestry Corporation to any moneys proposed to be borrowed under that order.

EDUCATIONAL NOTES.

Bath Pays for Medical Certificates. The Inspection of Private Schools. Attendance at Church. The Right of Entry of Members of Education Committees. Lancashire and Middlesex follow London in its Scholarships Scheme. Travelling Expenses of Members of Education Committees. Teachers' Agreements at Torquay.

Bath.—The Education Committee has arranged with the members of the Bath Medical Committee to visit children of necessitous parents, who are kept from school on suspicion that they are sickening for contagious or infectious disease; and to issue medical certificates at a fee of 2s. 6d. in each case, payable by the education authority qnarterly. It was decided that each of the attendance officers be supplied with a book of blank medical certificates to be supplied at their discretion, and that they be reqnested to report as to the use of such certificates at the monthly meetings of the attendance committee. It was reported to the Education Committee that one of the attendance officers had taken proceedings against parents who had withdrawn their children from elementary schools within the borough, and sent them to a private school outside. The bye-law stated that children had to attend a school recognised as being efficient. It was decided to send a communication to the Board of Education requesting that H.M. Inspector be empowered to visit and report to the committee as to the efficiency of the instruction given in such private schools as the education authority may from time to time consider advisable.

Bromley.—A letter was read at the Education Committee from the managers of the Addison Road School, stating that they had heard unofficially that the Education Committee had fixed the school honrs for schools under the Bromley Borough Council from nine to twelve o'clock; and having regard to the circular issned by the Board of Edncation, No. 512, to His Majesty's inspector upon the subject of taking children to church during school hours, the managers have unanimously passed a resolution applying formally to the Education Committee for permission to continue the practice of taking the children of the above-mentioned school to church for a short service of instrnction upon Holy days for observance of which provision is made in the Church of England Prayer Book. After a long discnssion it was decided to decline the request.

Chelmsford.—At the monthly meeting of the Education Committee a letter was read from the Board of Education with reference to the liability of the committee to pay for books required for religious instruction, stating:—"In view of the practical difficulties which might be occasioned if a local education authority should be called upon to provide books and apparatus of a denominational character, the Board would in all such cases be disposed to advise managers to make such provision for themselves, whatever may be the pecuniary liability of the local education authority regarded from a strictly legal standpoint." It was resolved that the managers of the varions schools be requested to accept the suggestion of the Board.

Hove.—The Board of Education has intimated to the Education Committee (with reference to the right of a member of the committee to enter a voluntary school) "that even a manager of the same school which he has a right to enter at any time without the specific authority of the other managers, would not be justified in giving directions to the teacher or interfering with the curriculum of the school without the authority of the managers as a body."

Lancashire.—The chairman of the Education Committee, in introducing the scheme of scholarships, said that the educational ladder was now fast being completed. It began with children over 11 and under 13, who were allowed to enter the junior exhibitions for proficiency in elementary school subjects. Of these exhibitions the county provided 120 of the annual value of £12, and tenable for three years—80 confined to elementary schools and the remaining 40 to be competed for by any children fulfilling the requirements as to age or residence in the connty. The next rung in the ladder was for children over 14 and under 16, and for these the committee provided 40 senior exhibitions for proficiency in secondary school subjects of the annual value of £20, and tenable for two years. After these came scholars between 16 and 25, and for these had been provided 15 scholarships of the annual valne of £60, tenable for three years. With these scholarships the holders could proceed to the university or to a place of higher education. In addition, other scholarships and exhibitions were being offered in certain special snbjects. Among these were 600 exhibitions for candidates intending to become pupil teachers, providing free tuition and travelling expenses if necessary, the exhibitions being tenable for two years. It was estimated that the total cost wonld amount to £27,500, or an increase over last year of no less than £17,000.

Middlesex.—The Education Committee has adopted a scheme for granting scholarships to boys and girls who desire to become teachers in elementary schools. The scholarships will be tenable at secondary schools within the county supported or recognised by the Education Committee, and will cover school fees (including cost of books), and carry maintenance allowances at the following rates:—

Age on 1st June.	Boys.	Girls.
Under 14 ...	Nil	Nil
14 to 15 ...	£6	£5
15 and over	£10	£8

Northumberland.—The Education Committee has adopted the following scale for letting council school-buildings out of school hours:—Meetings in one room which do not involve any disturbance of school furniture, with fire, 2s., without fire, 1s.; meetings which involve a substantial disturbance of school furniture, with fire, 5s., without fire, 2s. 6d.; social gatherings—large rooms, 10s.; class-rooms, 2s. 6d. each; Sunday schools, religious service, and educational classes, where school furniture is not substantially disturbed, with fire, 9d., without fire, 6d.

Torquay.—The Education Committee and the managers of the Cockington Church School are at variance over the terms of a proposed agreement. The managers refuse to accept the following clause:—"The trust deeds, Charters, Orders of the Board of Education, bye-laws, rules, or other instruments defining the foundation and governing the management of the school, and so much of the minutes of the proceedings of the managers as relate to the appointment, remuneration, dismissal, and duties of the teacher shall be open to the inspection of the teacher at all reasonable times, and he shall be entitled to make copies thereof, or extracts therefrom, without charge." The Education Committee has consulted the Board of Education as to the action of the managers, and at its last meeting decided not to recognise the Cockington schools in any way, financially or otherwise, until they have signed the committee's agreement.

Yorkshire (West Riding).—At the Edncation Committee, the sub-committee recommended, and it was agreed, that where any members of the Education Committee are appointed to report as to any site or other special purpose, the reasonable out-of-pocket expenses of snch members be paid.

WE are informed that the overseers of the Preston Union have appointed Messrs. Myres, Veevers and Myres, snrveyors and valuers, of Preston, to report on the value of the docks, &c., tramways, gas and water mains, Thirlmere Aqneduct, and other large properties in the Union, for assessment pnrposes.

STREET PROCESSIONS.

LIVERPOOL'S DRASTIC PROPOSALS MODIFIED.

THE extraordinary proposals of the Liverpool Corporation, by which powers were asked to enable it to prohibit street processions, have now been considerably modified. According to a report presented to the City Council this week, the town clerk and head constable have visited the Home Office for the pnrpose of ascertaining the attitude which wonld be taken by that department to the scheme.

They saw the legal advisers of the office, and submitted to them an account of the state of affairs which led the committee to pass the resolntion, and the Under Secretary, though expressing the desire of the department to assist the committee as far as possible, pointed out that, at all events for the present, the department did not think it likely that the Home Secretary would support the proposal.

He pointed out that it would be very difficult for Parliament to distingnish between the use of a street by a procession, which is a legitimate exercise of the rights of highway, and that which is an abuse of those rights, and that any attempt to limit rights of highway would not be likely to meet with the approval of Parliament, even though it were backed up by a stronger case than that presented by Liverpool. He pointed out how those powers might possibly be strengthened by bye-laws, of which the Home Secretary would in all probability be prepared to approve.

The town clerk and head constable therefore snbmitted that it might be better if the Watch Committee wonld recommend the conncil to endeavour to obtain bye-laws to the following effect, which wonld strengthen the hands of the police in checking the nuisance which caused the committee to pass its resolution.

The town clerk and the head constable therefore suggested that after the preamble of the resolution already passed by the committee the resolution should proceed as follows, after the word "city."

It be recommended to the council

That in the interests of good order the following bye-laws be adopted:—

(1) No person shall sonnd or play upon any musical or noisy instrument or sing in any street or public place within 100 yards of any dwelling-house or office to the annoyance of any inmate thereof, after being requested to desist by such inmate either personally or throngh his servant, or throngh a constable. Provided that this bye-law shall not apply to properly conducted religious services except when the request to desist is made on the ground of the serious illness of any inmate of the house.

(2) No person shall sound or play upon any musical or noisy instrnment, or sing in any street or public place within 100 yards of any place of pnblic worship, or public entertainment, or other place of pnblic assembly, in which persons are for the time being assembled, to the annoyance or disturbance of any person or persons so assembled, after being requested to desist by any constable, or by any person so annoyed or disturbed, or by any person acting on his behalf.

(3) No person shall sound or play upon any musical or noisy instrument, or sing in any street or public place within 100 yards of any hospital, infirmary, convalescent home, or other place used for the reception or treatment of the sick, after being requested to desist by any constable, or by any inmate or officer of such hospital or other place, or by any person acting on his behalf.

(4) No person shall in any street or public place, or in any place within view or hearing of any street or public place, use any threatening, abusive, or insulting language, gesture, or conduct, with intent to put any person in fear, or so as to occasion a breach of the peace.

(5) No person shall wilfully and persistently loiter at or near the entrance of any church, chapel, or other place of public worship to the annoyance or obstruction of any persons going to, attending at, or returning from Divine worship in such church, chapel, or other place of public worship.

These bye-laws would strengthen the provisions of the Liverpool Improvement Act, 1842, as to disorderly behaviour, Sec. 149 (26), and those of the Liverpool Improvement Act, 1883, Sec. 29, as to street music; and, further, as they would be made under the Municipal Corporations Act, 1882, the penalty could be fixed at a sum not exceeding £5 instead of the forty shillings fixed by the local Acts.

LOCAL FISCAL OPERATIONS.

The Spending Policy of Local Governing Bodies as Shown by a Dissection of the L.G.B. Local Taxation Returns. The Greater the Return from Trading Concerns the Lower the Rates. Proportion of Total Debt Devoted to Remunerative Undertakings. Growing Spirit of the Urban District Councils.

THAT part of the Local Taxation Returns of England and Wales for 1902 3 dealing with corporations and urban district councils outside the metropolis has just been issued by the Local Government Board. The corresponding volume for 1901-2 was not brought out till the end of January last, so that there is on this occasion a further improvement in the date of publication of two months, making nine months altogether during the past three years. Time is a matter of great moment in appraising the value of municipal statistics, and we congratulate Sir Samuel Provis's department on its recognition of the fact, and again express the hope that before very long we shall be accommodated with the returns within a year of the close of the financial period with which they deal. The present volume embraces the fiscal operations of 69 county boroughs, 250 other boroughs, and 812 urban district councils, the corresponding figures for 1901-2 being 67, 250 and 811 respectively. The two new county boroughs are Rotherham and West Hartlepool, and their promotion from the ranks of ordinary municipalities is made good by the accession of Bexhill and Morecambe. The number of urban district councils is a much more variable quantity than that of the higher class of local authority on account of the constant readjustment of areas to improve the administrative efficiency, and to allow for the natural expansion of the larger bodies. Thus, though the number this time only shows a nett increase of one, it really includes six new districts—Foot's Cray, Watchet, Ellesmere Port and Whitby, Compstall, Scalby, and Narberth—the same number that was added in the preceding year.

Fluctuating Millions.

The accounts present no new features of the first importance, the only noteworthy change being the inclusion in the case of boroughs of their receipts or disbursements as burial boards and harbour, pier, dock and port sanitary authorities. The figures have been shown in previous returns in marginal columns, but they were not merged with the ordinary revenue and expenditure, and were omitted from the totals. It is, perhaps, characteristic of the methods of the Local Government Board that whilst this alteration has been made in the accounts of municipalities the old style is still retained in the case of urban district councils, though we are promised a change in the next volume. We append our customary tables showing the main features of the returns, ignoring as usual the exchequer contribution section, the transfers from which are all covered in other branches. We have also amalgamated the two departments of borough finance in order that our readers may not be confused by a division as arbitrary as it is obsolete. The table below compares the current revenue and expenditure of the authorities for 1902-3, with that for 1901-2:—

CURRENT REVENUE.

	1902-3.	1901-2.	Increase.
	£	£	£
County boroughs ...	29,467,416	26,063,509	3,403,907
Other boroughs ...	8,063,489	7,678,791	384,698
Urban district councils	8,392,573	7,680,266	712,307
Total	45,923,478	41,422,566	4,500,912

CURRENT EXPENDITURE.

	1902-3.	1901-2.	Increase.
	£	£	£
County boroughs ...	26,814,232	24,436,615	2,377,617
Other boroughs ...	7,738,196	7,390,116	348,080
Urban district councils	8,350,991	7,678,225	672,766
Total	42,903,419	39,504,956	3,398,463

The Progressive U.D.C.'s.

Income shows an increase of nearly 11 per cent., as against 8 per cent. in the previous two periods, and expenditure, which in 1901-2 fell from 10 to 7 per cent., has moved up again to 8 per cent. It is worth while observing the increasing importance of the urban district councils, the magnitude of whose financial dealings now for the first time surpasses that of the boroughs other than counties. The sources of revenue are classified into four convenient groups in the table below:—

SOURCES OF REVENUE.

	Amount. 1902-3.	Amount. 1901-2.	Proportion of total revenue. 1902-3.	Proportion of total revenue. 1901-2
	£	£	%	%
County Boroughs.				
Rates	11,674,556	10,525,735	39¾	40½
State subsidies	1,123,816	1,110,849	3¾	4¼
Reproductive undertakings	12,228,040	11,208,472	41½	43
Miscellaneous..	4,441,004	3,218,453	15	12¼
Other Boroughs.				
Rates	3,796,660	3,546,119	47	46
State subsidies	205,488	195,125	2½	2½
Reproductive undertakings	2,477,658	2,444,514	30¾	31¾
Miscellaneous..	1,583,683	1,493,033	19¾	19¼
Urban District Councils.				
Rates	4,943,707	4,593,607	58¾	59¾
State subsidies	107,963	93,698	1½	1¼
Reproductive undertakings	1,600,260	1,418,964	19	18½
Miscellaneous..	1,740,643	1,573,997	20¾	20½

Municipal Trading Reduces Rates.

The relative status of these groups has not materially altered, nor was it to be expected that they would, but the changes that have taken place are certainly interesting. In the case of the county boroughs a smaller proportion is raised by rates, yet the income from State subsidies and reproductive undertakings is also lower, all the increase being thrown on the miscellaneous section. In the case of the other boroughs and the urban district councils, however, the usual rule holds good, a diminished return from trading concerns in the boroughs leading in a rise in the amount collected by rates, and an improvement in trading income in the urban district councils being accompanied by a lesser proportion taken out of the householder's pocket. The sum contributed by reproductive undertakings includes the gross receipts of tramways, markets and gas, water and electricity works. The argument may be pursued by showing the average rates levied by the three classes of authorities:—

AVERAGE RATES.

	1902-3. s.	d.	1901-2. s.	d.	Increase. d.
County boroughs ...	5	4·0	5	1·2	2·8
Other boroughs	4	3·5	4	1·7	1·8
Urban district councils	3	3·1	3	3·0	0·1

The average increase is equal to about 1½d. in the £, and compares with an advance of 1¼d. in 1901-2, and of 1d. in 1900-1. The gain is not startling in view of the much larger ratio of advance exhibited by expenditure generally. It will be observed that in the case of county boroughs, though the aggregate sum raised by rates constitutes a smaller proportion than usual of the total income, there is an increase in the average rate levied, which was to be looked for with a diminution in the relative income from trading ventures. The average rates given require adjusting to enable a proper comparison to be instituted, and we have, therefore, in the appended table deducted the average School Board rate from the boroughs and added the average county rate to the minor municipalities and urban district councils:—

AVERAGE RATES ADJUSTED.

	1902-3. s.	d.	1901-2. s.	d.	Increase. d.
County boroughs ...	4	3·9	4	1·5	2·4
Other boroughs	4	6·1	4	2·6	3·5
Urban district councils..	3	10·7	3	9·0	1·7

Instructive Comparisons.

We again draw attention to this very remarkable showing, which proves incontestably that the municipalisation of public services by the great county boroughs, so far from adding to the burdens of ratepayers, makes their areas less heavily rated than those of minor authorities who do not or cannot take up trading with the zeal that the big towns do.

Loan receipts and disbursements in 1902-3 exhibit a marked change in the spending policy of the lesser bodies, as a glance at the following table will show:—

LOAN RECEIPTS.

	1902-3.	1901-2.	+Increase or −Decrease.
	£	£	£
County boroughs...	14,613,350	14,288,178	+325,172
Other boroughs ...	2,812,662	3,318,488	−505,826
Urban district councils...	3,932,119	4,183,597	−251,478
Total... ...	21,358,131	21,790,263	−432,132

LOAN EXPENDITURE.

	1902-3.	1901-2.	+Increase or −Decrease.
	£	£	£
County boroughs...	14,770,543	14,365,999	+404,544
Other boroughs ...	2,867,853	3,219,337	−351,484
Urban district councils...	3,916,421	4,095,985	−179,564
Total... ...	21,554,817	21,681,321	−126,504

TOTAL INDEBTEDNESS.

	1902-3.	1901-2.	Increase.
	£	£	£
County boroughs...	158,872,027	140,526,758	18,345,269
Other boroughs ...	34,607,698	31,809,947	2,797,751
Urban district councils...	27,926,463	25,489,841	2,436,622
Total...	221,406,188	197,826,546	23,579,642

Debt for Remunerative Purposes.

The increase in income and outlay in the case of the county boroughs is very small, whilst the decline in the case of the other boroughs and the urban district councils is considerable. The alteration is the more notable as it compares with a gain of 21 per cent. in receipts and of 24 per cent. in expenditure in the previous year. The last time the boroughs recorded a drop in loan receipts was in 1896-7 and the urban district councils in 1895 6. The aggregate debt shows an increase of about 12 as against 10 per cent. The sinking funds amount to £12,319,200, reducing the nett debt to £209,086,988, as compared with £186,929,718. This nett figure is equal to 224 per cent. of the assessable value, as against 209 per cent., and to £10 3s. 9d. per head of population as compared with £9 2s. 2d. The bulk of the debt still retains its character of being a highly remunerative investment instead of a dead burden, despite the fact that recently the tendency has been to spend more on public improvements which, whilst eminently desirable, do not make a direct return to the householder like tramways and gasworks. The following table shows the gross outstanding liability in respect of the five principal trading undertakings and the ratio of each to the total indebtedness of the respective groups of authorities:—

LIVE DEBT.

	Amount. 1902-3.	Amount. 1901-2	Proportion of total debt. 1902-3.	Proportion of total debt. 1901-2.
	£.	£	Per cent.	
County Boroughs.				
Waterworks ...	43,395,642	41,122,253	27½	29¼
Gasworks ...	14,553,844	13,790,115	9	9¾
El'ctricity w'rks	11,804,603	9,270,588	7½	6½
Tramways ...	13,454,432	10,115,818	8½	7¼
Markets... ...	3,278,917	3,120,227	2	2¼
Total ...	86,487,438	77,419,001	54½	55
Other Boroughs.				
Waterworks ...	9,404,814	9,038,109	27¼	28½
Gasworks ...	4,677,018	4,632,171	13½	14½
El'ctricity w'rks	2,571,057	2,191,258	7¼	6¾
Tramways ...	779,446	609,749	2¼	2
Markets... ...	843,287	883,500	2½	2¾
Total ...	18,275,622	17,354,787	52¾	54½
Urban District Councils.				
Waterworks ...	5,103,337	4,705,617	18½	18½
Gasworks ...	3,278,203	3,277,803	11¾	12¾
El'ctricity w'rks	1,497,066	1,112,049	5½	4½
Tramways ...	613,324	400,719	2¼	1½
Markets	354,231	325,075	1¼	1¼
Total ...	10,846,161	9,821,263	38¾	38½

There has been a considerable advance in the amount of capital devoted to electricity undertakings, and tramways have also absorbed an increasingly large share of public funds. A significant feature of the table is the way it emphasises the growing importance of the urban district councils, to which we have already alluded. This group, indeed, is the only one of the three that has increased the ratio of its live debt to total indebtedness. Street improvements still represent 12 per cent. of the aggregate debt; sewerage systems and sewage disposal plants stand for another 11½ per cent.; and housing schemes stagnate at the utterly inadequate proportion of 2 per cent.

EDMONTON LIGHT.

COMPANY OR MUNICIPAL ENTERPRISE.

FOR several years electric lighting matters have engaged the attention of the Edmonton District Council. It was originally decided that the Council should itself carry out the powers of its electric lighting Order, and a complete scheme, involving a capital cost of £44,000, was prepared and submitted to the Council by Messrs. Robert Hammond and Son, the consulting engineers. The scheme was adopted, and the necessary specifications were prepared, but at this stage the North Metropolitan Electric Power Supply Company (a section of the Electrical Trust to which we have so often had to refer) came upon the scene, and urged the council to accept from it a supply of electricity in bulk, or to allow it to carry out the provisions of the order. After considerable discussion the council felt that it would be the proper thing not to limit the competition for the right of carrying out those powers to one company, but publicly to invite offers for different schemes. In response to that invitation five offers have been made to the Council, and these were considered at a special meeting last week. At that meeting Mr. Spencer Hawes, a member of the firm of consulting engineers, was in attendance, and according to our local contemporary, he gave a very clear and instructive verbal report upon the offers.

The offers may be summarised as follows:—

(1) **North Metropolitan Electric Power Supply Company.**

This is an offer to take over the Council's powers for a period of 26 years, prior to the expiration of which period the company cannot give the Council the right of purchase. The supply would be provided in bulk from the company's tramway power station, and the system would be high-pressure three-phase alternating. (On this point Mr. Hawes explained that Edmonton was eminently suited to a direct current low-pressure system, and the disadvantage of this offer, therefore, was that if the Council ultimately took over the undertaking, it might not find the company's system best suited to the requirements of the district.)

The prices named for the supply of current to cousumers were on the maximum demand system of 7d. per unit for oue hour per day and 2d. after for lighting, and 5d., 4d., aud 1d. for power.

(2) **Foote and Milne**

Offered to construct and maintain the works for 25 years and to give the Council the right to purchase after reasonable periods on terms of payiug any losses and interest thereon. This offer, however, was incomplete as it did not specify the rates of charge to be adopted.

(3) **Industrial Engineering Co. of Hyde**

Offered to construct works and to maintain them for five years only, but made it an absolute coudition that their own gas plant should be employed. The prices to be charged for current were higher thau those specified in other offers.

(4) **National Electric Construction Co., Limited.**

This company are specialists in this class of contracting for the construction and maintenance of electricity undertakings for municipalities, and already have several such schemes in hand. They offered to submit a teuder for the complete scheme exactly to the Council's own requirements, and upon the total they would require a payment of 5 per cent. for their mauageineut and superintendenco of the differeut sections of the works. They agreed to maintain for 25 years, to give the Council the right of taking over the undertaking at periods of 7, 10, 15, and 25 years on the basis of a dimiuishiug bonus payment, and to share with the Council all nett profits beyond 3 per cent. The prices quoted for the supply to cousumers were—for lighting, a flat rate of 5d per unit, and maximum demand rates of 7d. for one hour and 2d. after; and for power a sliding scale ranging from 2½d. to 1½d. per unit.

(5) **North Metropolitan Power Company.**

This offer is for a supply of electricty in bulk to the Council, under which the Council would have to provide its own central distributing statiou, equipped with a transforming apparatus, together with the distributiug mains system, aud to arrauge a complete staff for dealing with the administrative work and the distributing system.

It seems to us that the course which the Council should take is made quite clear by these offers. If it desires to avoid every risk, it cannot accept the second or "bulk" supply offer of the Metropolitan Company, while the first offer of that company embodies the very objectionable feature that the Council would part with its statutory rights for as long as 26 years, and would have no voice in the control of the undertaking. Moreover, the company would not provide a self-contained scheme for Edmonton, but would supply the current from works miles away from the district. The National Construction Company's offer, on the other hand, provides for a complete undertaking for Edmonton, with works erected in Edmonton, and on the direct-current system, and the company takes all the risks of losses. If it be decided that the risk of a few years of loss on the working of the undertaking cannot be accepted by the Council, then the Council must, in justice to itself and to the ratepayers, give the National Company's offer the preference. But in our opinion the Council would be well advised to follow the example of other municipalities and to carry out its original intention of providing a municipal undertaking to be worked by the Council, and to be under the direct control of the Council. It may be that for the first two, or possibly three, years a loss would be incurred, but these losses would very soon be out-balanced by the profits which would arise so soon as the undertaking became properly established.

Edmonton is a district distinctly favourable for an electricity undertaking, and the Council will commit itself to an irremediable error if it allows the statutory powers, for which it had to fight so hard and at such enormons cost, to pass into the hands of the very company which was responsible for the opposition to the granting of those powers.

OFFICIAL & PERSONAL.

BATH TOWN CLERKSHIP.

Bradford Deputy Town Clerk Appointed.

THE Bath Town Council last week elected a town clerk in succession to the late Mr. Benjamin Hick Watts. The selected candidates were:—Messrs. Moore and Shum, two local solicitors, Mr. Shum having been a member of the Council for 11 years; Mr. J. W. Halloran, deputy town clerk of Chatham; Mr. D. Arthur Nicholl, town clerk of Scarborough; Mr. F. Darlington Wardle, deputy town clerk of Bradford; and Mr. W. H. Wise, principal assistant to the Bristol town clerk. Each candidate addressed the Council, and the election was made by a series of ballots. The local candidates failed first, then Messrs. Halloran and Wise. The final ballot resulted in 40 votes being given to Mr. Wardle and 12 to Mr. Nicholl, the former being accordingly elected.

MR. F. D. WARDLE
(New Town Clerk of Bath).

Mr. Frederick Darlington Wardle was appointed deputy town clerk of Bradford on August 12, 1902. Prior to that he had been chief assistant solicitor to the West Riding County Council, having followed Mr. Herbert Hankinson (late deputy town clerk of Bradford, and now town clerk of Northampton) in that position. He followed Mr. Hankinson to Bradford at a salary originally of £500 a year, which was subsequeutly increased to £600, with annual advances up to £750. Mr. Wardle specialised at Wakefield, as did Mr. Hankinson, on questions of sewage disposal, and in this respect his knowledge was of special value to Bradford.

The son of Sir Thomas Wardle, silk manufacturer, of Leek, Staffordshire, and chairman of the Silk Association of Great Britain, Mr. Wardle, who is 37 years of age, was educated and articled locally. Prior to his appointment by the West Riding County Council he was in private practice with firms at Leek and London. By his promotion Bradford loses an exceedingly able, courteous, hard-working, and efficient official. His commencing salary at Bath will be £800, but it is probable that the separate offices of town clerk and clerk to the urban sanitary authority will ultimately be combined.

THE BRADFORD VACANCY.

THE Finance and General Purposes Committee of the Bradford Corporation has accepted with deep regret the resignation of Mr. F. D. Wardle, deputy town clerk.

The committee has decided to advertise for a successor to Mr. Wardle on the same terms and conditions observed by him, viz., a commencing salary of £500, rising in annual instalments of £50 to £750. A sub-committee was appointed to consider applications, and it is to recommend six candidates to the Finance Committee.

GLASGOW TOWN CLERKSHIP.

Resignation of Mr. J. G. Monro.

MR. JAMES GEORGE MONRO has resigned his position as town clerk of Glasgow. Mr. Monro states that he has decided to withdraw from the service of the Corporation, his intention being to retire into private life.

So far as length of service is concerned, Mr. Monro is the oldest member of the department over which he presides, having been associated with it for the long period of 36 years, during which he has given assiduous attention to his duties.

In 1885 Mr. Monro was appointed a deputy town clerk. In November of last year he was chosen by the Town Council unanimously to act as interim town clerk, the Corporation having decided to postpone for a twelve-month the appointment of Sir James Marwick's successor. That period has now expired.

SCARBOROUGH MEDICAL OFFICER.

DR. F. DITTMAR, M.A., medical officer of health for Scarborough, has been appointed medical inspector for the Local Government Board of Scotland, and also inspector of the Vaccine Institution of Scotland. The former appointment is a very lucrative one, and is made by the Crown.

Dr. Dittmar, who succeeds Dr. McKenzie, is 34 years of age. He was appointed medical officer of health for Scarborough on the 8th of January, 1903, at a salary of £400, out of a list of 45 applicants. Previous to that he was assistant medical officer of Glasgow. Dr. Dittmar is the son of the late Professor Dittmar, who was a well-known analyst and professor of chemistry in Anderson's College, Glasgow.

L.C.C. VACANCIES.

OWING very largely to the great amount of work caused by the additional educational duties transferred to the London County Council, there is an abnormal number of existing and prospective vacancies for clerks in the Council's services. An open competitive examination for clerkships in the fourth class will be held under the new syllabus in January next, and for this occasion the age limits will be extended, so as to include candidates whose age is not less than 17 nor more than 24 years.

Officials in the fourth class commence at £80 a year, and rise by £5 annually to £100. Positions in the classes above the fourth class are obtained up to the third class (limit £150 a year) by promotion according to merit, and into the second (limit £200 a year) and first (limit £300 a year) classes according to the nature of their duties.

There are also a few positions at higher salaries. Particulars as to the examination are given in the official advertisement appearing in this issue.

BRICKS FROM CLINKER.

Fulham Borough Council is Successfully Carrying Out a Scheme by which Bricks are Made from the Clinker that Comes From the Dust Destructor. The First Building Erected of Clinker Bricks. A New Industry for a London Borough.

ONE of the incidental benefits of a dust destructor is that the local anthority which owns it is able to turn to good account material that under other circumstances would be wasted. According to the agenda of a recent meeting of the Fulham Town Council, the borough surveyor reported that in the past six months the flag and brickmaking plant had turned out—

5,069 3ft. by 2ft. flags,
7,373 2ft. by 2ft. do.
50,830 bricks,
and 141½ cubic yards mortar;

that the walls enclosing the plant had been erected with the bricks, and that up to the present 12,000 had been used in the Town Hall extension bnildings.

Mr. Francis Wood, A.M.Inst.C.E., the borough surveyor and engineer, has nndoubtedly brought to a successful issue the making of a highly satisfactory brick (equal to if not better than either the best London stock or any other local building brick) with the clinker that is taken as it comes from the furnaces of the refuse destructor.

The systematic making of bricks from clinker refuse and cement was initiated by Mr. Wood, who two years ago designed a plant for Fulham, which he considered would bring the manufacture of bricks from clinker within the range of practical politics. The plant was erected by Messrs. Fielding and Platt, the well-known hydraulic engineers of Gloucester, who have greatly assisted in overcoming the difficulties which it was natural to expect in the installation of a new idea such as this.

The plant is of the simplest character. The clinker is thrown into a hopper, and after passing through certain stages or processes it is discharged from a machine either as a brick or as a flag, depending on which is being made or required.

The intermediate processes are merely the crushing of the large and small pieces of clinker of from 3in. to 16in. to dust, which is attained by crushing machines, granulators, and screens. The resultant powder then falls into the hopper of a conveyor, and is taken to a mill, where cement is added.

The crushed clinker and cement is mechanically poured into the mill in a constant ratio, which also depends on whether bricks or slabs are being made. Water having been poured on to the mixture, the cement and clinker are ground and mixed together nntil the mixture reaches the stage when the cement is found to be thoroughly incorporated with the clinker. A slide is then opened, and the mill discharges the mixture through to a shute to the brick or flag-making machine, which applies an enormous pressure, and turns out bricks or flags at the rate of nine per minute and 30 per hour respectively.

The photograph shows the building in which these processes are in progress. It illustrates the first building in this or any other country which has been built with bricks made from the clinker from a refuse destructor.

The bricks are placed on trays resting on a trolley—a trolley load contains about 150—and this is sent with its load along tram rails to a desired position, and the trays are left on the track, and the trolley drawn away for another load.

The bricks after 24 hours' exposure to the open air are ready to be handled and stacked, and in a week or a fortnight, depending on the weather, the bricks when knocked together begin to have a ring. In six weeks they attain such strength that they require a pressure equal to 216 tons per square foot before they are crushed, and at 14 weeks old they crush at 282 tons per square foot. The tests were made by Messrs. Kirkaldy and Son.

When the price of cement and lime is in the ratio of 4 to 1 the bricks can be made cheaper by using more cement than lime.

Mr. Wood is of opinion that the finer the clinker grit the better will be the brick, and the more grinding that is given the less will be the quantity of cement required.

He has made them at the rate of 4,400 to the ton of cement equally as strong as those made at the rate of 3,200 to the ton.

The cost of the bricks approximated closely to £1 per thousand, and this includes special men picking and taking out the iron, laying the bricks out, and afterwards stacking them ready to be carted away. If the machines worked day and night the bricks would, of course, be cheaper.

The outlay of £1,000 will go a long way to cover the cost, and more especially so when the greater portion of the machinery required is necessary for the manufacture of slabs for paving purposes.

A FULHAM MUNICIPAL BUILDING BUILT FROM CLINKER BRICKS.

"MISREPRESENTATION BY CIRCULAR."

A REPLY FROM THE YORKSHIRE ELECTRIC POWER COMPANY.

FROM Mr. W. B. Woodhouse, the resident engineer of the Yorkshire Electric Power Company, we have received the following reply to the article published in our last week's issue, headed "Misrepresentation by Circnlar":—

To the Editor.

Sir,—I shall be pleased if you will grant me space to answer the amazing attack made in your issue of December 2nd on figures contained in a letter sent out from this office, and entitled "Combined Electricity and Destructor Stations."

The letter referred to dealt with towns of less than 30,000 inhabitants, as was clearly stated; results obtained in snch places as Hackney (230,000 inhabitants), Shoreditch (118,000), and so on, are of no value in forecasting those to be expected in small towns such as were dealt with.

The figures contained in my letter were taken from the *Electrical Times* of October 27th and previous issnes, and were the latest to hand at the time. Yonr contributor in no way controverts their accuracy, and he correctly interprets "year of working" to mean the "financial year" ended March 31st, except where it suits his purpose to do otherwise.

The Dartford results were included in good faith; the fact that the electrical undertaking made a loss of £1,292 without the help of a destructor in no way affects the accuracy of the other figures. In a supplementary return (*Electrician*, September 30, 1904) of the Dartford Electric Lighting Committee, the nett deficit on the past year's working is put at £1,619. which shows *that since the destructor was added the loss has increased.*

I have embodied the later information given by your contributor in the following table:—

FINANCIAL RESULTS OF THE WORKING OF COMBINED REFUSE DESTRUCTORS AND ELECTRICITY STATIONS IN TOWNS OF LESS THAN 30,000 INHABITANTS.

Town.	Year of Working.	Financial result.
Bangor	1901-2	£886 loss
,, ...	1902-3	619 ,,
Beckenham	1901-2	696 ,,
,, ...	1902-3	582 ,,
Canterbury	1902-3	54 ,,
,, ...	1903-4	812 profit
Cleckheaton	1903-4	£280 loss
Llandudno	1902-3	386 ,,
,, ...	1903-4	54 profit
Mexborough	1902-3	179 loss
,, ...	1903-4	340 ,,
Shipley	1902-3	447 ,,
,, ...	1903-4	125 ,,
Wrexham	1901-2	461 ,,
,, ...	1902-3	560 ,,

And these figures are referred to as "vague arguments"!

The Yorkshire Electric Power Company, far from wishing to stifle municipal enterprise, desires to assist municipalities in avoiding unnecessary losses, and that such losses are unnecessary the case of Bridgend, quoted in my letter, shows.

Mr. Woodhouse merely repeats the figures he has previously pnblished, with our own added. He makes no attempt to refute the facts we gave last week regarding the special circumstances of practically every case he quoted. As these facts constitute the whole of the argument, there is no need to go over them again in order to demonstrate the ingenuousness of the Yorkshire Electric Power Company.

We see that Mr. Woodhouse again refers to the case of Beckenham, which we purposely omitted last week. It is particularly curious that he should include it, as this is really not a municipal undertaking in the strict sense of the word. *The Beckenham works were erected and are being run by a company.* The admitted loss is the company's concern, and does not affect the happy ratepayers, but such an example cited by another company rather approaches the ludicrous.

NOTES AND ANSWERS.

Surplus on the Borough Funds may be Applied to Educational Purposes. Adulteration of Milk, and the Weight in Law of the Certificate of the Inland Revenue Analyst. Can Local Authorities Compel the Construction of Private Drains to Connect with Proposed Sewers? Interesting Legal Points under the Education Act, 1902. Powers of Corporations to Compel Owners to Pave Private Streets.

**** Queries intended for this column should be addressed to the "Legal Correspondent," MUNICIPAL JOURNAL, 12, Salisbury Square, E.C. They should be written on one side of the paper only, and be signed by a nom de plume or initials, the real name and address of the correspondent being written on the back of the paper.*

562.—**BOROUGH FUND—May Surplus be Applied in Aid of Library Rate, or General District Rate, or Education Rate?**—I shall be glad if you can give me a reply to the following:—

(1) Can a municipal corporation use a surplus on its borough fund for free library or education purposes, or is it compelled to lay a library rate or education rate?

(2) My corporation does not lay a borough rate. Can it use its surplus on borough fund for general district fund purposes?

Kindly give authority for answer.—"X. Y."

(1) Sec. 18 (1) (a) of the Public Libraries Act, 1892, provides, that the expenses incurred in a library district in and incidental to the execution of the Act, may be defrayed "where the library district is a municipal borough, out of the borough fund or borough rate. . . . ." Sec. 18 (1) of the Education Act, 1902, provides, that the education expenses of the council of a borough shall be paid "out of the borough fund or rate. . . . ." Hence the surplus of the borough fund is applicable both to the expenses of administering the Public Libraries Acts and also to that of the Education Acts.

(2) Sec. 143 (2) of the Municipal Corporations Act, 1882, provides that, if the surplus of the borough fund arises from the rents and profits of the municipal corporation, and not from a borough rate, and the borough is a sanitary district (which most boroughs are under the Public Health Act, 1875), then the corporation may apply such surplus in payment of expenses incurred by it as a sanitary authority "in improving the borough, or any part thereof, by drainage, enlargement of streets, or otherwise, under the Public Health Act, 1875 . . . ." It would seem, therefore, that the surplus of the borough fund is not applicable generally in relief of the general district rate or for purposes other than those specified which would ordinarily be a charge upon such rate. The incidence of the borough rate and the general district rate, it may be pointed out, is not the same.

563.—**ADULTERATION OF MILK—Food and Drugs Acts, 1875-1899, Sec. 21—Analysis by Commissioner of Inland Revenue.**—By Sec. 21 of the Act of 1899 the Court can cause a sample of any food to be sent for analysis to the Inland Revenue on the request of either party. In a prosecution under Sec. 6 of the principal Act the magistrates sent the third sample on the request of the defendant for analysis by the Inland Revenue authorities. On the return of the certificate showing the analysis at Somerset House it is found that the adulteration is not so large as represented on the borough analyst's certificate, though still considerable. The milk had, however, been kept for over a month. There is therefore a discrepancy in the two certificates. The Act does not state what is the effect of this, but it is presumed that this slight discrepancy would not be sufficient reason for dismissing the summons. Are there any decisions on the point? I should be glad of a reply through the medium of your columns on this point.—"SUBSCRIBER."

It seems clear on the construction of the Act, and on general principle, that the discrepancy between the borough analyst's certificate and that of the Inland Revenue analyst would not be a sufficient reason for dismissing the summons. The Act does not make the certificate of the Inland Revenue analyst conclusive, though, of course, great weight will be attached to it. A Scotch case—"Fyfo v. Hamilton" (1894)—(cited in Bell and Scrivener on the Sale of Food and Drugs) may be usefully referred to in this connection, as it would in all probability be followed in the English courts. The district analyst, in a milk prosecution, had certified an abstraction of 15 per cent. of fat. Another analyst, on behalf of the defendant, certified that no abstraction had taken place. The Inland Revenue authorities certified an abstraction of 26 per cent. On these facts the "sheriff substitute" acquitted the defendants, and the Court of Justiciary, on appeal, held that he was not bound to acquit. In other words, it is a question of evidence in each case. The magistrate will naturally attach great weight to unbiassed and expert evidence of the Inland Revenue authorities, but he is not bound by their certificate. The magistrates must decide the case upon the whole of the evidence before them.

564.—**NEW SEWERS—Are Owners of Houses Bound to Lay New Drains to Connect with Newly-Laid Sewers?**—I beg to submit the following queries:—

(1) Is a house "effectually drained" within the meaning of Secs. 23 and 24 of the Public Health Act, 1875, which has a 6in. pipe in good condition and communicating with an old road sewer (about to be reconstructed), and taking sink and surface water, such being the only drainage required to be disposed of?

(2) When laying new road sewer, should the existing drains be disconnected from old sewer and connected to new one by local authority, or is the authority entitled to require owner or occupier to make entirely new drains, by notice to that effect, as provided by Sec. 23 of the Act, thus ignoring the existing drain and sewer, to which Sec. 24 of the Act appears to relate?—"SURVEYOR."

(1) Sec. 23 of the Public Health Act, 1875, above referred to, empowers the local authority to enforce, at the expense of the owners of houses in its district, the drainage of such houses where they are "without a drain sufficient for effectual drainage." What is "effectual drainage" is a question depending on the facts of each particular case. Usually the local authority provides in its bye-laws for a certain minimum size of pipe. In the model bye-laws framed by the Local Government Board, and extensively adopted throughout the country, the minimum size of drain is a four-inch pipe for an ordinary house. We should say that, apart from any special considerations affecting the present case, the six-inch pipe already provided would be of ample size for the effectual drainage of the premises concerned.

(2) Sec. 24 of the Public Health Act, 1875, authorises the local authority in the case of houses which may be already effectually drained, but are not adapted to the general sewerage system of the district, to close the drains of such house, and to provide new drains for the effectual drainage of the houses to communicate with such other sewer as it thinks fit, and to pay the cost of the necessary works out of the general district rate. In the circumstances suggested, therefore, if, as would appear to be the case, the house in question is effectually drained, the local authority cannot compel the owner or occupier to make new drains to connect with its proposed new sewer. The authority must execute the necessary works, and bear the cost of so doing.

565.—**PRIVATE STREET WORKS ACT, 1892.**—My council has served notices, under the Private Street Works Act, 1892, to make up a certain street within the urban district, and objections have been lodged by the whole of the owners, with one exception, under the whole of the clauses contained in Sec. 7, and a sub-committee appointed to report to the council, having considered such objections, has decided to recommend the council not to proceed further in connection therewith, but allow the matter to drop. Will you, therefore, kindly advise me whether it is competent for the council to drop the scheme, and in the event of the owners obtaining an indictment against the council, would such action in any way prejudice the council's position. I have also received a communication from a certain owner, intimating that he has decided to withdraw the objection, "That the works are unreasonable and unnecessary," and will rely entirely upon the objection "That the street is a highway repairable by the inhabitants at large," but this being received after the expiration of the mouth allowed by the Act, I take it no notice need be taken of such communication?—"INQUIRER."

The council is not bound to proceed with its scheme for making up this street, although a resolution has been passed and certain steps may have been taken in this direction. Withdrawal from the scheme would not necessarily prejudice the council in any legal proceedings which might hereafter be taken against it in respect of the road. At the same time it is highly probable that this step would have considerable weight as evidence against the authority, tending to show, as it might be argued that it does, that the council to some extent admitted responsibility for the making up and repair of the road. Should the council determine to proceed with the scheme, it is clear that the notice of objection which has been received after the expiration of the month allowed by Sec. 6 of the Act of 1892, is of no validity.

566.—**URBAN DISTRICT COUNCILLOR—Retirement of One-third of the Councillors Annually.**—I am a member of an urban district council the whole of which retires once in every three years. I am wishful to bring about a change so that six members shall retire each year. How am I to proceed, and what is necessary to be done?—"READER."

The Local Government Act of 1894—Sec. 23 (6)—provides, that the term of office of a councillor shall be three years, and one-third, as nearly as may be, of the council shall go out of office on the 15th of April in each year, and their places shall be filled by newly-elected councillors; provided that a county council may, on request made by a resolution of the urban district council passed by two-thirds of the members voting, direct that the members of such council shall retire together on the 15th of April in every third year. In the present case, no doubt, the county council made an order under this section in due course. It will now be necessary for the county council to pass a resolution (in pursuance of a formal application from the urban district council) rescinding such order, and restoring the effect of the general law, as laid down in the section above mentioned. The power to pass such a resolution rescinding the earlier one is expressly conferred by Sec. 1 of the District Councillors and Guardians (Term of Office) Act, 1900. It is there enacted that, where an order has been issued by a county council with respect to the retirement of members of an urban or rural district council, or a board of guardians, the county council may, on the "like application or request" as is referred to in connection with the earlier order, rescind such earlier order. The rescinding order shall require all councillors or guardians to go out of office, and their places to be filled by newly-elected councillors or guardians on the 15th of April next following the date of the county council's order.

567.—**APPORTIONMENT OF PRIVATE STREET WORKS—Has Owner of Property the Right to be Informed as to the Total Cost of the Work?**—Will you be good enough to answer the following query?—An account has been sent to a property owner charging him with an amount as his portion of the cost of making a back passage, the work having been done by the Corporation. Is it not within his right to ask for, and be shown, an account of the total cost of the work done; and also to be informed what is the proportion of the whole he is called upon to pay? In this case, I understand he has asked for the above information, and has been refused, on the ground that a local Act of Parliament has a clause providing that the certificate of the surveyor shall be sufficient, and this clause reads as follows:—"Such cost or apportioned cost may be recovered by the Corporation from the owner or owners in default in a summary manner in like manner and subject to the like provisions in all respects as the costs and expenses mentioned in Sec. 104 of the Public Health Act, 1875, are by that Act recoverable, and a statement of such cost or of the apportionment thereof made up and certified by the surveyor shall be conclusive."—"H. L. S. C."

On the construction of the clause above quoted, it seems to us that there is nothing to compel the local authority to give the property owner information as to the total cost of the works for part of which he is liable. The words—". . . . a statement of such cost, or *of the apportionment thereof*, made up and certified by the surveyor, shall be conclusive"—do not seem to warrant an owner of property in demanding information to the extent suggested by our correspondent. Whether it would not be advisable for the authority, as a

matter of policy, to afford full information when desired, is a question upon which a different answer might well be given. It may be pointed out that the property owner will have the right, as a burgess, to inspect the minutes of the proceedings of the council, and may take a copy or make an extract therefrom, in pursuance of Sec. 233 of the Municipal Corporations Act, 1882, and he may there find the required particulars of cost and apportionment.

568.—**EDUCATION ACT, 1902—Education Committees—Joint Burial Committees.**—A council for an urban district with a population of less than 20,000 appointed four of its members, along with three representatives nominated by the county council representing the rural areas, to act as the higher education committee for the school area, which committee possesses full delegated powers from the council in relation to the administration of the Education Act, 1902, except with regard to the borrowing of money. The council has also nominated two of its members to serve upon the elementary education committee for a period of three years, acting altogether independent of the council, being a committee with executive powers under the county council. The council also appoints five members to serve upon the Joint Burial Acts Committee, along with two representatives appointed by a neighbouring parish council. Will you, therefore, be good enough to advise me upon the following points:—

(1) Whether a member of the higher education committee resigning the office of councillor thereupon ceases to act upon the higher education committee?

(2) Whether the members appointed to serve upon the elementary education committee require to be re-appointed at the annual meeting of the council?

(3) Whether Query (1) also applies to a member of the elementary education committee and our Burial Acts joint committee?

In these education matters much may depend on the terms of the scheme made by the council and approved by the Board of Education. The urban district council in this case having a population of less than 20,000 is not a local education authority, but has concurrent powers with the county council of supplying or aiding the supply of education other than elementary.

(1) The education scheme has, no doubt, provided (as required by Sec. 17 (3) (a) of the Education Act of 1902) "for the appointment by the council of at least a majority of the (Higher Education) Committee." The sub-section mentioned requires that the persons so appointed shall be persons who are members of the council; and it would seem that a member of such committee who has been appointed to the office as a councillor, in pursuance of the statutory provision, would cease to be a member thereof on resigning office as a councillor.

(2) Apparently, in the absence of any special provision in the education scheme to the contrary, it is not necessary to reappoint annually the members of the council appointed to serve on the Elementary Education Committee—which, in this case, is a committee of the county council.

(3) It seems doubtful whether resignation of office as a councillor would involve resignation of office as a member of the Elementary Education Committee. Reference should be made to the scheme to ascertain whether it is there provided that the representatives of the urban district council on such committee must be councillors. In the absence of any such provision, it would appear that resignation of the councillorship does not involve loss of office as a member of the committee. Joint committees under the Burial Acts are appointed in pursuance of Sec. 53 (2) of the Local Government Act, 1894. That sub-section seems to contemplate the appointment to such committee of members only of the respective councils concerned, and the better opinion would seem to be that a member of any such committee on resignation of office as councillor ceases also to be a member of the committee.

559.—**LIBRARY CHARGES.**—As an occasional reader of your "Notes and Answers," I should appreciate the service you will render me if you can inform me whether I have any chance of successfully resisting the library charges of my general district rate under the following circumstances. This is the fourth time the rate has been laid, and our council has got no further than considering a scheme, with very little prospect of carrying it out, and the fund has thus accumulated this last three years. Has not the rate to be used within three years of its being laid, or can they go on collecting it indefinitely.—"Q."

Sec. 18 (1) of the Public Libraries Act, 1892, provides that the "expenses incurred" in a library district incidental to the execution of the Act may be defrayed in a municipal borough out of the borough fund or borough rate, and, in the case of an urban district other than a borough, out of the general district rate, or, in each case, out of a rate similarly levied. As our correspondent mentions the general district rate, we infer that the library district coincides with an urban district, and is not a borough. The general district rate (whether in borough or in urban districts) is levied in pursuance of Sec. 210 of the Public Health Act, 1875. That section places a limit of six months upon the time during which the expenses incurred by the urban district council (or borough council) may be paid out of the rate, but does not limit the period of prospective expenditure covered by such rate. "Any such rate may be made and levied prospectively in order to raise money for the payment of future charges and expenses." It is clearly contemplated that the rate shall be made to cover the expenses likely to be incurred within a limited period, but the Act does not require it to be so made. Usually the rate is made for six months, and it is clearly irregular to continue levying a rate for purposes which are not likely to involve expense within the period of such rate. The council is, in effect, accumulating a large balance. If our assumption is correct that the complaint comes from an urban district, we suggest that our correspondent should bring the matter before the district auditor at the next audit of the council's accounts, or that he should cause the point to be raised in the council through his representative thereon. There is no statutory requirement which we are aware of directing that a rate shall be used within three years of its being collected.

570.—**ACCOUNTS—Method of Accounting for General District Rate.**—In further reference to Queries 536 and 553, we have received the following communication from "Reader":—In the method suggested by me under Query 536, the general district fund would be credited with the actual product of the rate. The principle at stake is, whether the *collector* should be debited with the total rate to be collected; and I contend he should, because it seems absurd to debit a person with what he himself accounts for. He should be debited with what he is expected to account for, and in this case the collector would be given credit for any amounts which he could prove to be irrecoverable. The recoverable arrears and cash in hand at the end of the year could, as you explain, be very easily shown separately.

571.—**PRIVATE STREET WORKS.—Street "Repairable by the Inhabitants at Large."**—When a new house is built in the street or highway of a borough or an urban district who has to go to the first cost of kerbing, paving and channeling the footpath? The case in point is that of a house built some years ago on a side of the street which is only partly paved. Can the owner be compelled to pave, or can he compel the Corporation and urban district council to do so? The street is a public one repairable by the inhabitants at large. Does the paving in this case constitute a private improvement? Nearly every street in the town has been paved out of the rates. Some of the councillors say they are going to make all owners pave in the future. Have they this power? The Private Street Works Act has not been adopted. What constitutes a private street work?—"INCORPORATED ACCOUNTANT."

The general rule is that where a street is "repairable by the inhabitants at large," the frontagers (or any of them), cannot be made liable for the repair of such street, or any part thereof. This rule is occasionally subject to exceptions under the provisions of a local Act. Our correspondent should inquire whether the councillors referred to have any such local Act in view in connection with their resolution to make frontagers liable in the circumstances set out above. Apart from this, the council can have the street in question, including the footpath, made up, paved, &c., and charge the cost of the works to the general district rate. Such works cannot under the circumstances be declared to be "private improvement works" under Sec. 150 of the Public Health Act, 1875. "Private street works" are works which come within the provisions of that section, or of the Private Street Works Act, 1892. To define them would be impossible in our space, but, shortly, they consist of the works necessary to make up and maintain a street which has not been taken over by the local authority, and which is not repairable by the inhabitants at large.

572.—**IS A BURGESS WHO NOMINATES A COUNCILLOR DISQUALIFIED FOR ACTING AS RETURNING OFFICER?**—Will you kindly answer the following question:—Is it illegal for a person to act as returning officer at a municipal election after having signed a candidate's nomination paper as an assenter?—"R."

We are not aware of any statutory provision or regulation which would render it illegal for a burgess who has signed the nomination paper of a candidate for office as counsellor to act as returning officer. We should say, however, that it is inadvisable that the returning officer, having regard to his responsible position, should take such an active part in procuring the election of any candidate.

RECENT DECISION OF THE HIGH COURT.

Liability of L.C.C. as Tramway Authority for Negligence of Contractor in Executing Works for the Tram System—"Sanders v. Reid Brothers, and the L.C.C."

In this case the L.C.C. and its contractors, Messrs. Reid Brothers, were held liable for damages inflicted on the carman of a lorry which struck against a manhole provided by Reid Brothers for the L.C.C. in connection with the provision of electrical conduits for the tram system. The manhole jutted above the road and was dangerous. No doubt the London County Council will recover its share of the liability from the contractors, with whom it had a contract of indemnity, but the case illustrates the well-established principle that a public authority cannot get rid of its responsibility to the public by entrusting the works it has to execute to third parties.

MUNICIPAL THEATRES.

ONE THAT DOESN'T PAY.

ADVOCATES of the municipal theatre in this country will be interested in the results of the first year's working of an Australian experiment in that direction.

The Corporation of the town of Geelong, which is about fifty miles south of Melbourne, submitted the question to a referendum of the ratepayers, and a majority decided for a civic palace of entertainment. So Her Majesty's Theatre was erected on a valuable Corporation site.

The balance-sheet for the first year submitted at the last meeting of the Corporation shows a debit balance of 15s. 6d.! But, according to a number of protesting ratepayers, the actual loss really runs into thousands. The new Mayor of Geelong has advised his council to "candidly admit the unfortunate result of their theatrical speculation."

SOUTHPORT'S AMBITIONS.

COUNTY BOROUGH POWERS APPLIED FOR.

THIS week Major Norton, of the Local Government Board, has been conducting an inquiry into the application of the Southport Corporation for county borough powers.

Since Southport's first local Act was obtained, 58 years ago, the population has increased from 4,000 to 51,323, and the rateable value from £10,000 to £362,216. In 1872, four years after the charter of incorporation was granted, the population was only 18,086, and the rateable value was £96,101. Therefore, in the intervening years, the population has been nearly trebled, and the rateable value almost quadrupled.

Southport now owns the markets, marine lakes, cemetery, destructor, police and fire stations, science and art schools, parks and recreation grounds, the electric lighting undertaking, the gas undertaking, and the tramways, though part of the latter-named are leased to a company. From 1879 to 1897 the Corporation rates have averaged 3s. in the £, but with a water rate in aid about 6d. and an education rate of 3d., the rates have gone up to 3s. 11d. in the £.

Southport is the largest non-county borough within the county area, and the rateable value is more than double that of any other.

Official Advertisements.

THE ROYAL BOROUGH OF KENSINGTON.

APPOINTMENT OF OFFICE CLERK.

THE Council of the Royal Borough of Kensington require the Services of an additional OFFICE CLERK in the Borough Treasurer's Department, at the commencing salary of the fourth class, viz., £70 per annum, rising by conditional annual increments of £7 10s. to £100 per annum.

Candidates must write a clear and good hand, and possess an aptitude for figures and a knowledge of bookkeeping and accounts. Previous experience in the finance department of a municipal or other similar authority is essential.

The Council reserve the right to test the qualifications of candiates by examination.

Applications must be made in the candidates' own handwriting on printed forms, to be obtained ot the Borough Treasurer at the Town Hall, Kensington, and must be delivered to the undersigned, accompanied by copies of not more than three testimonials of recent date, by 4 o'clock in the afternoon of Friday, the 16th December, 1904.

Personal canvassing of any member of the Council will be a disqualification.

WM. CHAMBERS LEETE.
Town Clerk.

Town Hall,
Kensington, W.
8th December, 1904.

BOROUGH OF LEICESTER.

INSPECTOR OF FOOD.

THE Town Council of Leicester require the Services of an INSPECTOR of NUISANCES, whose chief duties will be the in spection of slaughterhouses, meat, game, fish, fruit, milk, and other articles of food. Applicants must state fully their qualifications for the appointment.

Preference will be given to one who has had experience in the inspection of food, and has obtained the certificate of the Sanitary Institute. Salary £120 per annum.

Applications, accompanied by three recent testimonials, must be endorsed "Inspector of Food," and addressed "Chairman of the Sanitary Committee," Town Hall, Leicester, and sent in not later than Saturday, the 24th day of December instant.

Canvassing is strictly prohibited.

By order.
E. V. HILEY,
Town Clerk.

Town Hall, Leicester.
6th December, 1904.

METROPOLITAN BOROUGH OF DEPTFORD.

WORKS DEPARTMENT.

DISTRICT FOREMAN.

THE Council of the above Borough are prepared to receive Applications from qualified persons for the Appointment of a DISTRICT FOREMAN, at wages after the rate of 37s. 6d. per week.

The person appointed is to have under his control, so far as his district is concerned, the road scavenging, dusting, street watering, gully cleansing, and slop removal. His duties will include reporting daily upon any defects or encroachments on the highways, or any defects in the street lighting.

Applications, which must be made upon forms to be obtained from the undersigned, should be accompanied by copies of not more than three recent testimonials, and must be sent to me at the undermentioned address not later than 9 a.m. on Monday, the 19th December, 1904, the envelope to be endorsed outside "Application for District Foreman."

The person appointed will be required to devote the whole of his time to the duties of his office, and will not be allowed to undertake or be directly or indirectly concerned in any other business than that of the Council.

Canvassing any member of the Council, either directly or indirectly, will disqualify candidates.

(Signed) VIVIAN ORCHARD,
Town Clerk.

Municipal Offices,
20, Tanners Hill,
Deptford, S.E.
8th December, 1904.

Official Advertisements.

COUNTY OF LONDON.

EXAMINATION FOR FOURTH-CLASS CLERKSHIPS.

THE London County Council Hereby gives Notice, that an EXAMINATION under the New Syllabus for FOURTH-CLASS CLERKSHIPS will be held as follows:—Part I. at 9.30 a.m. on the 16th and 17th January, 1905, at the Northampton Institute, St. John Street Road, Clerkenwell, London; and Part II. on 30th January, 1905, and the five following days, at a centre in London which in due course will be announced to intending candidates.

Candidates must not be under 17 or over 24 years of age on 11th January, 1905. Each candidate sitting for Part I. of the examination will have to pay to the cashier at the County Hall, Spring Gardens, S.W., on 12th January, 1905, between the hours of 12 and 2, a fee of 10s., and candidates sitting for Part II. will be required to pay a fee of 10s. on 24th January, 1905, between the hours of 12 and 2. Candidates may send their fees for Parts I. and II. by post, but they must reach the cashier at the County Hall, Spring Gardens, S.W., not later than 10 a.m. on 12th January and 18th January, 1905, respectively.

Candidates who have passed or obtained the necessary certificates in any of the undermentioned examinations will be exempted from sitting for Part I. of the examination:—

(a) The following matriculation examinations:—The Universities of London, Liverpool, Birmingham, and Leeds, the Royal University of Ireland, the University of Wales, the Victoria University of Manchester, and Trinity College, Dublin.
(b) The Cambridge Higher Local examination.
(c) The Oxford, Cambridge, or the Durham Local examination for senior students.
(d) Oxford and Cambridge (Joint Board) Schools examination higher certificate.
(e) The leaving certificate given by the Scotch Education Department (provided a higher grade certificate has been obtained in three subjects); the school leaving examination of the University of London, and the certificate of the senior grade of the Irish Intermediate Education Board.
(f) Part I. of the Council's examinations for fourth-class clerkships held on 2nd and 3rd June, 1904, and 31st October and 1st November, 1904.

Candidates so exempted must at the time of paying the fee produce their certificates or other evidence of having passed the abovementioned examinations. If the fee be sent by post the certificate must be forwarded therewith.

Forms of application and particulars of the appointments and the conditions under which they are held may be obtained either by applying personally or by sending a stamped addressed foolscap envelope to the Clerk of the Council, County Hall, Spring Gardens, S.W.

Candidates sitting for Part I. of the Examination must send in their applications by 10 a.m. on 11th January, 1905, and in the case of candidates exempted from sitting for Part I. the latest time for receiving applications will be 10 a.m. on 16th January, 1905.

G. L. GOMME,
Clerk of the London County Council.

County Hall,
Spring Gardens, S.W.
7th December, 1904.

SITUATION WANTED by a respectable Young Man, aged 22, as Junior Assistant in a Surveyor's Office. Over four years' experience. Salary moderate. Write H. G. Roberts, Two-Mile Hill, Bristol.

SULPHUME
(SULPHUR DIOXIDE)
FOR
ROOM DISINFECTION
As adopted by the WAR OFFICE, and numerous HOSPITALS, CORPORATIONS, and other SANITARY AUTHORITIES.
MAKERS AND PATENTEES,
A. BOAKE, ROBERTS & CO., Ltd.,
STRATFORD, LONDON, *ENGLAND.*

TEMPERANCE PERMANENT
BUILDING SOCIETY,
4, Ludgate Hill, London, E.C.
A Safe Four Per Cent. Investment.
Free from fluctuations, and without deduction of Income Tax.
CAPITAL AVAILABLE WITHOUT DEPRECIATION
without expense and at short notice when required.
DEPOSITS RECEIVED AT THREE PER CENT.
LARGEST RESERVE
of any Building Society in the United Kingdom.
EDWARD WOOD, Manager.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.
Surrey House, Victoria Embankment.
LONDON, W.C.
Opposite the Temple Station, Metropolitan District Railway.
BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.
BONDS are also issued on Behalf of INLAND REVENUE COLLECTORS.
REDUCED PREMIUMS from 3s. per cent.
Bonds approved under Seal of Local Government Board and Inland Revenue Department.
Proposal forms and full particulars on application to the Secretary SHIRLEY FURSELL.

BIRKBECK BANK
ESTABLISHED 1851.
2½ per cent. INTEREST
allowed on Deposit Accounts Repayable on Demand.
2 per cent. INTEREST
allowed on Current Accounts on minimum monthly balances when not drawn below £100.
ADVANCES MADE.
STOCKS & SHARES BOUGHT & SOLD.
Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C.

EATON & KNAPP,
BOILER SETTERS & FURNACE BUILDERS,
Repairs in Boiler Brickwork & Dust Destructors of all kinds.
ESTIMATES FREE.
23, CLACTON ROAD, WALTHAMSTOW.

LIGHTNING CONDUCTORS.
J. LEWIS,
5 and 6 Great Winchester Street, Londor, E.C.
TELEPHONE No. 3053 CENTRAL.

THE CLARION
THE PIONEER JOURNAL OF SOCIAL REFORM.
Edited by ROBERT BLATCHFORD.
You shonld read "THE CLARION" for reliable information as to
MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD
In fact, if yon are interested in Social and Economic Progress, and wish to keep in tonch with the new thonght and new politics of the 20th Centnry,
You Must Read "THE CLARION."
Send for specimen copy to "THE CLARION" Office,
72, FLEET STREET, LONDON, E.C.

"*Age cannot wither, nor custom stale,*" the *infinite variety of*

HOUSEHOLD WORDS

FOUNDED BY CHARLES DICKENS IN 1850.
Now owned and published by EDWARD LLOYD, Ltd.

ORDER FROM YOUR NEWSAGENT
THE GREAT

CHRISTMAS NUMBER

Ready Dec. 12. One Penny.

NEW ROMANTIC SERIAL,
By GUY BOOTHBY,
BEGINS.

Three Complete Tales.

SPECIAL HOLIDAY PAPERS by
WALTER JERROLD,
TOM CRAVEN,
A. STUART ROBERTSON,
H. L. ADAM.
J. A. CAVE,
W. E. CHURCH,
WILLIAM MOORE,
THURGOOD CATLING.
Miss PRISCILLA MOULDER.
Miss L. C. RADEGLIA.

CHILDREN'S PAGE, with Prize Letters.
HOME COMPETITIONS.
NEW PUZZLE by "SPHINX."

ALWAYS WELCOME.

HOUSEHOLD WORDS

TO TOWN CLERKS,
SURVEYORS,
ENGINEERS,
AND OTHER
MUNICIPAL OFFICIALS.

We are constantly receiving evidence of the value of THE

MUNICIPAL JOURNAL

FOR
OFFICIAL ADVERTISEMENTS
OF
APPOINTMENTS, TENDERS, &c.

The Sale of the Journal is
INCREASING Week by Week

Office, 12. SALISBURY SQUARE E.C.

A HISTORY OF THE ENGLISH POOR LAW. . .

A RE-ISSUE OF
A STANDARD WORK
AT ONE-THIRD OF
THE ORIGINAL PRICE.

Vols. I. & II. NICHOLLS. 10s. 6d. net.
Vol. III. MACKAY. 7s. 6d. net.

Or the 3 vols. complete,
15s. net.

P. S. KING & SON,
ORCHARD HOUSE, WESTMINSTER.

The Cream of Cocoas.
EPPS'S
Contains all the nutriment
COCOA
of the Choicest Nibs.

MUNICIPAL JOURNAL
FRIDAY, DEC. 9, 1904.

NOTES AND COMMENTS.

Next Session's Bills.

THE budget of private Bill legislation for the next session of Parliament, notwithstanding the many statements recently made that local authorities have no money for new schemes, is a heavy one. The number of Bills promoted is 224, a decrease on the previous year of 48. Included in the total are 67 electric light, power, and traction schemes, promoted by local authorities, and 82 by companies. There are nearly a score of omnibus Bills promoted by county, town, or urban district councils in connection with general police regulations. The wide range is suggested by the following list:—Processions, milk supply, the manufacture and sale of ice cream, sky signs, powers for inspectors on the construction of buildings, whose wages are to be paid for by the fees exacted; registration of restaurants, cafés, common lodging-houses, drovers, porters, shoe-blacks; the limits of air-space provided in sleeping-rooms, the inclusion amongst compulsory infectious diseases of tuberculosis of the lungs. Liverpool, which has a very extensive scheme, seeks powers also regarding noises, animals, hairdressing saloons, and the prevention of the smoke nuisance. The London County Council proposes to insist that vans engaged in the delivery of bread shall carry weights and scales; while Accrington further intends to institute a municipal fire insurance fund.

Various Works.

THE London County Council proposes once again to run a tram line over Westminster Bridge, along the Victoria Embankment, and back south over Blackfriars Bridge, so as to secure a circular route and obviate termini at the southern ends of the bridges, where vehicular traffic is very extensive, and is obstructed by the present arrangement. The Glasgow Corporation proposes several lines, principally in the West End. Bury Corporation proposes 15 miles of new tramways, Halifax five miles, Bradford three miles, Liverpool a considerable extension in the Bootle district, and Wigan several additional lines, while quite a number of councils project extensions. Electric Lighting Provisional Orders are applied for by 30 local authorities and 33 companies. Ten Electric Lighting and Power Bills are promoted by local authorities, and 11 by companies. Several interesting proposals are raised in connection with harbour works. Of waterworks, perhaps the most important are those in connection with the Bolton Corporation. Four large reservoirs are proposed, ranging up to 83½ chains long, and formed by great dams across existing brooks.

Piccadilly Widening.

WE hope that the London County Council, in considering the question of the Piccadilly widening next Tuesday, will deal with it in a businesslike way. The proposal of the Improvements Committee is to widen that part of the thoroughfare between St. James's Street and Duke Street, at an estimated outlay of £72,500. The scheme will not be defeated on grounds of expediency, but we understand that it may be if the Council insists that the contribution of the Westminster authority shall be greater than the circumstances of the case demand. The Improvements Committee recommends that the contribution shall be £10,493—a seventh of the cost—which the Westminster authority is prepared to pay, but an amendment will be moved in favour of £18,125—a fourth—which the City Council is not prepared to pay. The guiding principle in these matters is the extent to which the proposed improvement is a local as distinguished from a London improvement. Piccadilly is certainly a London, and not a Westminster, thoroughfare. Its traffic is almost wholly general traffic, travelling from one part of the City to another. Next to the Strand—or perhaps equally with the Strand—it is the most purely London thoroughfare in London. The contribution of a seventh of the cost of the widening from Westminster is even generous when we consider what has occurred with the other London improvement schemes. The county improvements undertaken by the Council comprise 62 schemes. In 29 of these cases no contribution whatever was made by the local authorities concerned; in three cases a contribution of one-tenth was made by the local authorities, in one case one-eighth, in one case one-seventh, in three cases one-sixth, in one case one-fifth, in nine cases one-fourth, in ten cases one-third, in four cases one-half, and in one case two-thirds. Therefore, as we have said, the contribution from Westminster is generous.

"Shall Companies Vote?"

OUR well-meaning contemporary, the *Journal of Gas Lighting*, is backsliding again. It represents ourselves and others as "having gone hysterical over the attempt to remedy a piece of

flagrant injustice which has completely deprived limited liability companies of voting power in the matter of representation in municipal affairs":—

> In the eyes of the ultra-municipalists such companies are, although the largest ratepayers in a district, nothing better than pariahs who have no right to hearing or representation. Suffice it, they say, that in their individual capacity, these people have a vote. But before even a molecule of equity will be discovered in this argument, it necessitates the residence of all stockholders in the municipal area within which the business premises or works of the company are situated.

The *Journal of Gas Lighting*, as is perhaps natural with a publication which desires to advance company interests, confuses the stock with the stockholders. Stockholders do not vote because they hold stock; they exercise the franchise simply because they are citizens. A man may hold a million pounds worth of stock in companies whose offices are situate in Holborn, but that fact does not make him a citizen of Holborn, nor confer upon him a right to take part in Holborn's municipal affairs. And why should it? Holborn already allows him to make money in the borough, for which privilege he is naturally called upon to pay rates. The *Journal of Gas Lighting* says "it is only those municipal bodies who fear who will oppose" Holborn's scheme. Certainly. All municipal bodies have occasion for fear at the prospect of their affairs being controlled by joint stock companies. For then it would be the company, and not the community, which would govern. And that would be bad for any municipal enterprise from which it is possible to make profits for rate relief.

The Bankers Again.

THE bankers are evidently alarmed at the discovery that local authorities are able to obtain money without going to them for it. Mr. F. E. Steele, of Parr's Bank, speaking at Manchester on Friday, deprecated the employment, on works of a permanent nature, of deposits obtained by municipalities from the public, "subject to notice." "The works in which such moneys were sunk might be of a desirable nature, but they should not be financed by means of funds which could only be repaid by further borrowing in other quarters—borrowing which might be difficult and even impossible in certain contingencies." We have previously pointed out that the great drawback of municipal savings bank schemes up to the present has been that they do not provide for the consequences of a run of withdrawals. This difficulty, however, could be overcome by making the bonds negotiable, as is done on the continent. The Deptford scheme, too, is not subject to the danger of which Mr. Steele speaks. None of these schemes, however, would have become necessary had not the bankers developed an attitude of hostility towards the development of municipal enterprise. It is not usual for persons who have articles to sell to criticise their customers for buying them.

"Local Rates and Taxes."

MR. JOHN HOLT SCHOOLING may be very clever at drawing diagrams, but he has evidently given a very cursory study to the problems of local government. In an article published in the current number of the *Windsor Magazine*, which in other respects is a highly creditable production, he comments on the vastness of our local expenditure in the following terms:—

> For example, what is the explanation of conditions often seen, when a road is so badly re-metalled that in a few months the job has to be done again? When a piece of public drainage is constantly being tinkered by a leisurely group of workmen, who pull up the road again and again to re-tinker?

Apart from the absurdity of criticising an annual expenditure of 112 millions sterling on such trifling grounds as these Mr. Holt Schooling will be surprised to learn that in a great many cases the contractor suffers for the delinquencies he describes, and not the poor overburdened ratepayer. Mr. Holt Schooling adds:—

> When, owing to mismanagement of, and extravagance in, local finance, many of the houses in a very important southern town by the sea remain unlet, inhabitants being constrained to leave the town rather than submit to further extortion, one must think either that the local authorities who do the spending are not competent to see that work is done properly, or that someone connected with the spending of rates does in some way receive benefit from public work being done badly or being done unnecessarily.

Mr. Holt Schooling does not give us the name of the town referred to, which is a pity, for when vacant houses stand unlet at seaside resorts the cause is not always high rates, but the fact that the local authorities do not make the towns sufficiently attractive. In other words, they do not spend enough money upon them. If they did, the local debt which Mr. Schooling laments would be even greater than it is, but the incubus would be more than balanced by the increase in the town's prosperity.

"Municipal Trading."

MR. HOLT SCHOOLING'S remarks upon municipal enterprise are unusually wild for a methodical statistician. He says:—

> For my part, although I am ready to admit that there is a good deal to be said in favour of these costly "reproductive enterprises" undertaken by local spending authorities, I think they should be left to the private enterprise of business men who would, it is likely, take good care to protect the capital invested in them.
>
> With local bodies, if things go wrong, it is merely a matter of more pence in the £ put on to the rates; with the result that residents are actually driven away from the town, whose trade and position generally starts on the down grade burdened with a heavy debt.
>
> The citizens have to bear the burden, not the local authorities who sanctioned the foolish expenditure, possibly to their own individual benefit.

As a popular statistician Mr. Holt Schooling should be interested in the tables we published in our last week's issue, which show that these enterprises, so far from increasing the rates, actually relieve them. If he will only learn the lesson these tables convey we shall have no more of this new style of ghost story in the *Windsor Magazine*.

"Municipal Oratory."

APROPOS our note under this head, Mr. Labouchere in last week's *Truth* quoted the following chaste sample of platform eloquence from the report of a municipal election meeting at Carlisle:—

> Major Spencer Ferguson said that everything possible had been said about Mr. Hope and about that other man. (Laughter.) He would be hanged if he wanted to be represented by an infernal fellow—(laughter)—who came from the other side of the river and damned the town as much as he could. (Laughter.) They did not want that sort of a rascal put in the Town Council. (Laughter and cheers.) If he had his way he would get a devilish short shrift. (Great laughter.) He intended to vote at eight o'clock on Tuesday morning for the right man.

"This gallant orator," says *Truth*, "is an officer of the Northumberland Fusiliers, at present acting as adjutant to the 1st V.B. Border Regiment. I do not know whether the paragraph in the King's Regulations prohibiting officers on the active list from taking part in political meetings would apply to a mere matter of municipal electioneering; but that it should do is evidently desirable in some cases, if only for the sake of officers themselves."

Tax Land Values.

SOME remarkable figures in favour of the case for the taxation of land values are contained in a leaflet just issued by the Tyneside branch of the English League. To-day the land tax is still levied on the values of 1692, and, instead of one twenty-fifth part of our national revenue, it yields only £750,000 out of £140,000,000, or one 186th. If levied on present values the land tax would realise £40,000,000, the land values of the United Kingdom being estimated by the "Financial Reform Almanack" at £200,000,000 per annum. Under this land tax, therefore, the landlords pay every year £39,250,000 sterling less than they ought to pay, and as a necessary consequence the labour and capital of the country are forced to pay under other taxes £39,250,000 every year more than they ought to pay:—

> In the United Kingdom at present some 12,000,000 acres of good cultivable land, capable of supporting a family to every 5 or 10 acres, are held idle for deer forests, game preserves, &c., while millions of acres more are only half used, "labour-starved." Were the land tax of 4s. in the £ levied on the full yearly value of all land, whether in use or not, these 12,000,000 acres would soon be put to use.
>
> This means that 1,200,000 families, or 6,000,000 men, women, and children, would be drafted from the slums and the mining districts into the country. There would be 1,200,000 families fewer competing for wages in the towns and the mining districts, therefore higher wages; 1,200,000 families fewer competing for house room, therefore more house room for those left behind, and lower house rents. . . .
>
> These 1,200,000 families on the now derelict 12,000,000 acres would afford a home market of upwards of £62,000,000 per annum for all the products of mine and factory, while the great increase in the amount of home-grown food would immensely strengthen the position of the Empire.

There is one matter which the writer of this pamphlet has apparently disregarded, and which we mention, not, of course, as an argument against the taxation of land values, but as a proof that side by side with this reform must go reform in the conditions under which local authorities are able to build workmen's dwellings. The 1,200,000 families who would go back to the land were these predictions fulfilled would have to find houses to live in. At present the accommodation in rural districts is not even sufficient to house the existing scanty population. Incidentally, therefore, the taxation of land values should give a very great impetus to building enterprise in country districts.

POOR LAW OUTLOOK.

A New and Admirable Scheme for the Emigration of State Children to Canada. Attitude of the Canadian Government and of English Boards of Guardians. A Comparison Favourable to Bradford, and the Secret of its Economy in Pauperism. Favourable Conditions Under Which the Submerged Might Rise—Not Doles. A Great Moral Lesson.

ANOTHER scheme—and an admirable one—is put forward this week for the emigration of State children to Canada. The author is Mrs. Close, of Eaton Square, who has for many years taken an active interest in the subject. The proposal marks a somewhat new departure. The intention is to combine the principles of the best of the Poor Law systems of dealing with the children now being adopted in England with the principle of emigration, and to establish cottage—or rather farm—homes in Canada, to which children should be sent at an early age to be brought up on the land, each farm to take from 15 to 20 children under the charge of two ladies.

Draining the Sources of Pauperism.

WITHIN the past six months there has been a movement amongst certain metropolitan boards of guardians for the establishment of a Poor Law Receiving Home in Canada. Realising the immense advantage this class of children reap from emigration, we welcomed the proposal, notwithstanding that we realised the danger of aggregating children in any building approaching a barrack school. Sir John Gorst condemned the scheme largely on the ground that the pauper taint would attach to children coming from an establishment of this kind. This objection may be shown to be chimerical, inasmuch as no child is taken into a Canadian farmer's home without some investigation, and the fact that it has been emigrated through a religious agency is too superficial a disguise to deceive any one.

Objections to Poor Law Receiving Homes.

BUT this scheme of Mrs. Close overcomes several of these difficulties. The children would be brought up in the healthiest manner on the land, and without the evils of aggregation. The boys would help in the fields, the garden, and the farm-yard, as soon as they were old enough; the girls would learn kitchen, dairy, and housework. They would be taught in the public schools, and it is now generally recognised that in England the teaching in the regular elementary schools is much better for Poor Law children than that provided in special schools. They would be free from all contact with pauper associations, and would be prepared to take their place in the world among other citizens and on the same footing. A striking feature of the scheme is that on reaching the proper age boys who choose the army, navy, or mercantile marine as their profession should be returned to England; and similarly, any boys or girls for whom good situations are found at home.

Bright Prospects for the Emigrants.

AND in Canada the project is not only considered feasible, but is warmly welcomed. The most suitable parts of the Dominion appear to be the provinces of Nova Scotia and New Brunswick, and the North West Territories. The provincial Governments of Nova Scotia and New Brunswick have recently transmitted their formal approval and willingness to assist and promote the scheme. The Government of New Brunswick, according to a letter from the Attorney-General, dated November 9,

> Will make a free grant of two hundred (200) acres to the guardians in respect of each group of, say, four adults and 20 children placed upon a farm purchased by the guardians, and that in respect of such grants the usual conditions for settlement will be waived for a period of years, and special regulations made in respect thereto, which will be subject to the approval of the guardians. . . . Of course, it will be understood that the proviucial Government shall be satisfied that suitable arrangements will be made which will ensure the proper care of the children, and that the Government shall have the right to periodical inspection of the homes.

Attitude in Canada.

The Government of Nova Scotia equally embraces the suggestion, a cablegram having been received from the Premier, stating "Our Government approves and will assist in a practical way."

A WIDE door may thus be thrown open to a large proportion of the 42,000 State children in our land. But a still more important question is, will permission be granted to the children to go? English boards of guardians do not take kindly to the emigration of their little wards. The guardian who "stood on the seashore and saw with tears in his eyes the sturdy sons and daughters of England leaving their native land" is typical of a large class. The *Times*, in outlining the scheme and reproducing the various official letters of welcome that have been penned from the other side of the Atlantic, has entirely overlooked this main fact at home. Interviews by representatives of the *Municipal Journal* with Mrs. Virginia M. Crawford, of the St. Marylebone Board School, who was one of a deputation to Canada to study the question of emigrating State children, and Miss Penrose Philip, secretary of the State Children's Association, have brought out this unfortunate characteristic of English guardians. No one denies that emigration is the most economical as well as the most thorough method of dealing with State children. Is it true that guardians like to see fine institutions and the tangible results of their work before their eyes? If so, it is a human failing that will have to be conquered.

English Guardians' Prejudice.

ONE of the Local Government Board inspectors (Mr. P. H. Bagenal) has been comparing the expenditure of the Bradford and Sheffield Unions, and showing how unfavourable the latter is, both on in-door and out-door relief, although Bradford is very little smaller. A good deal of attention has been drawn to this comparison in the north of England, and speculation is rife as to the cause of so great a discrepancy in two neighbouring unions. An article which appeared in the *Municipal Journal* last year went a long way to explain how Bradford's policy helps to reduce demoralisation by pauperism. The system has three great features. The first is the rotation of members on the relief committees. The union is divided into four districts, with a relieving officer for each, and the members of the Board do not sit perpetually in one section, but they move from section to section—each of which has a permanent chairman, who keeps in touch with the policy of the Board—by a process of rotation.

Reducing Pauperism.

THE great result of the rotation rule is that no member thinks it necessary to press specially for relief in the cases of his own particular parish, and this has an enormous bearing on the cases treated. The second point is the appointment of a superintendent relieving officer, who sees that the relief is uniform, and that orders relating to the relief are carried out. The third point is the lady cross visitor. After relief has been given, the superintendent relieving officer makes a list of those cases she has to visit—that is, those persons who have been relieved for the first time—and she makes a report, according to a prescribed plan, to the Finance Committee, who constitute the Revision Committee, and have the power of revising the whole of the relief allowed.

Justice—Not Favouritism.

THESE regulations have aroused considerable soreness of feeling recently amongst the unemployed of the town, and the leader of a deputation to the Board not long ago described them as "fiendish." Academic opinion, as represented on the one hand by Sir William Chance, M.A., author of "Our Treatment of the Poor," regards the Bradford policy as an admirable one, while, on the other hand, Mr. J. Theodore Dodd, M.A., the well-known author and lecturer on Poor Law administration, says:—"They (the Bradford Guardians) have greatly cut down out-relief. It is perfectly easy to do this in any union. All that guardians have to do is to 'offer the house.' Many will prefer semi-starvation outside to semi-imprisonment within." As illustrating the working of the Bradford system, it may be mentioned that, though the population of the town has increased from 216,000 to 228,667 since 1899, the average daily number of outdoor paupers fell from 1,634 to 1,257.

Varying Opinion on the Policy.

MR. BAGENAL, the kindest of men, is making a name for himself as a follower of the strict school of Poor Law administration. This week, commenting on the statistics of pauperism at the Barnsley Board of Guardians, he compared the cost of relief in the Rotherham Union at 2s. 4d. per head with that of Barnsley at 1s. 11d. per head. He said he thought the difference was due to the greater existence of friendly societies in the Barnsley Union.

> There was evidently a greater desire not to be maintained at the public cost. The Barnsley Guardians' system of first asking an applicant if he was not receiving anything from a club or society was teaching a great moral lesson, and comparing the three mining unions, Pontefract, Rotherham, and Barnsley, he thought the figures of Barnsley showed great evidence of thrift and the maintenance of independence of mind.

Thrift and independence of mind are worth more than gold, but when careful regulations are made to promote these qualities they are howled down in uninformed quarters as fiendish.

Thrift and Independence.

LAX administration, like indiscriminate charity, are great evils. What reformers should turn their attention to is not so much the best system of dole-giving, but the amelioration of the conditions of those on and below the border-line of subsistence. Mr. Walter Long was so far right on Tuesday evening when he asked his hearers at a Conservative dinner at the Holborn Restaurant

> Whether, if men were industrious, honest, anxious to work, and could not get work, anybody could blame them if, lacking other assistance, they joined the ranks of those who told them that somewhere there was a fairy godmother who would wave her wand and give them a share in a prosperity which otherwise they could not realise.

But when the President of the Local Government Board spoke of the dangers of the unemployed "joining the ranks of those who said that all the laws of the land were bad, and that nothing but a radical change could save them from difficulties of that kind," he was what is somewhat vulgarly called "talking through his hat." No serious-minded person ever says that *all* the laws of the land are bad. From an alteration of *some* of the laws, which tend to widen the gulf between the very poor and the very rich; more good would result than from the best schemes of relief, even, if we may say so, including that just put forward by Mr. Long himself.

Mr. Long and Laws of the Land.

LIVERPOOL has no work which can be undertaken by the unemployed beyond those now in operation under the various committees of the Corporation, and yet the Local Government Board has this week intimated that it cannot sanction an excess of expenditure in order to relieve the men. A crowd of 200 men waited on the Fulham Guardians at their last meeting. The stoneyard which the Lewisham Borough Council opened a fortnight ago for the benefit of the unemployed has presented an all too busy scene during the last few days.

The Unemployed.

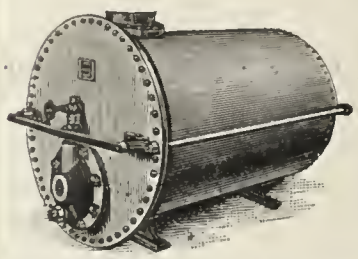
HEATING OF BUILDINGS & HOT WATER SUPPLY

FROM LIVE OR EXHAUST STEAM.

The Latest and Best Appliance is

ROW'S PATENT

CALORIFIER



Storage Calorifier for Baths.

Combined with AUTOMATIC STEAM CONTROL (Royles' Patent)

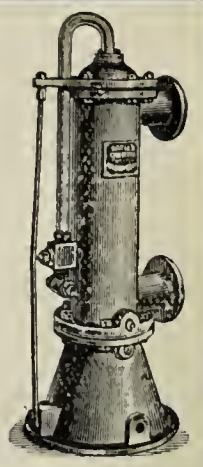
Adopted by the Metropolitan Asylums Board, London County Council, Manchester, Liverpool, Glasgow, Edinburgh Corporations, and others, for Bath Supply.

COPIOUS SUPPLY, UNIFOR TEPER ATURE.

ROYLES LIMITED, IRLAM, near Manchester.

ALSO MANUFACTURERS OF

Feed Water Heaters, Condensers, Evaporators, Steam and Gas Kettles, Syphonia Steam Traps, Reducing Valves, Oil Separators, Exhaust Heads, Boiler Mountings, &c., &c. Price and full particulars on application.



Vertical Calorifier for Hot Water Circulation.

NERNST ELECTRIC LAMP.

Patentees for the United Kingdom,

The A.E.G. ENGLISH MANUFACTURING CO., Ltd.,

4, NEW COMPTON STREET, CHARING CROSS ROAD, LONDON, W.C.

The Ideal Lamp for Street Lighting.

GREAT ECONOMY WITH

GALLOWAY BOILERS AND ENGINES

STEEL BOILERS. ALL SIZES AND PRESSURES. **READY DELIVERY.**

STEAM ENGINES. HIGH-SPEED AND OTHER TYPES **QUICK DELIVERY.**

ENGINE AND BOILER REPAIRS PROMPTLY EXECUTED.

BRANCH OFFICES:

LONDON:	GLASGOW:	BIRMINGHAM:	NEWCASTLE-ON-TYNE:
17, Philpot Lane.	128, Hope Street.	Iron Exchange.	13, Mosley Street.

GALLOWAYS LIMITED

MANCHESTER.

ELECTRICITY SUPPLY.

The Story of Two South Coast Undertakings as Shown by a Summary of the Last Published Accounts. Southampton's Rapidly-Rising Traction Load, and a New Phase in Its History. Changes in the Right Direction at Hastings. A Comparison Between the Two Towns.

THE fortunes of the undertakings purchased by municipalities from companies have been varied, but they generally show a rapid improvement under the change of management. This is largely attributable to the ability to expend capital in modernising the plant and extending the area of supply. The character of the change so brought about was referred to in our last week's issue when discussing the accounts at Eastbourne, and this week we lay before our readers a summary of the last published accounts of two other south coast undertakings, Hastings and Southampton. The latter is becoming more important through its rapidly rising traction load, while Hastings has to struggle on with only lighting business. Like Eastbourne, Southampton has entered upon an entirely new phase in its history by the laying down of an up-to-date generating station, and by converting its system of supply gradually from a mixed alternating and direct current system to a continuous current one, one of the advantages derived from the location of the new works in a position better fitted to cope with the load in the district where the consumers are most dense. The committee may well consider that the past year has shown very satisfactory business, as the number of consumers increased on the old tariff, and the reduction in the price to 4½d. per unit from the commencement of the current financial year should greatly add to the custom, especially as extensions of mains have been carried into many parts of the town previously untouched. The reduction in price has not been—as is too often the case—a blind attempt to improve the output without attention being paid to the probable result on the expenditure, as the new works must enable many economies to be effected in the working expenses by a lessened consumption of coal, &c. It is, moreover, an indication of the sound policy controlling the undertaking that the surplus should have been devoted to meeting expenditure involved in the changes carried out, instead of transferring the amount to the general rate fund, which, in the case of Southampton, must have been a strong temptation.

❦ ❦ ❦

The Surplus at Southampton.

THE several results of last year's working, as set out in the abstract of the electric light works accounts, are as follows :—

Revenue derived from sales of current, &c., amounted to		£27,639
And the working expenditure to		14,352
Leaving a gross profit of		£13,287
Out of this sum the following requirements were met :—		
Interest on stock	£3,471	
,, on transfer from sinking fund ...	288	
,, on overdraft	795	
Sinking fund	4,144	
Interest on consumers' deposits	6	
Total of capital and special charges		8,704
Surplus, to appropriation fund		£4,583
Receipts from tramways department		229
Provision for tramway battery		228
Gross surplus		£5,040
Appropriated : Capital expenditure paid out of revenue	£5,000	
,, Depreciation and renewals fund	40	
Total as above	£5,040	

It will be seen that the actual surplus from the supply revenue account was £4,583. This was transferred to an appropriation account, to which was credited the fees for work on the tramway system carried out by the electrical staff, amounting to 2½ per cent. on £9,171, and an amount provided for the maintenance of the tramway battery in the previous year, and not expended. These brought the total to £5,040. As the new buildings were designed by the borough engineer, 2½ per cent. on £19,184, or £480, was paid as fees; £1,709 expenditure on capital account in excess of sanctions, the heavy expenditure incurred in the re-erection of plant removed from the old works, extensions of public lighting, switchboard enlargement, and replacement of copper strip mains and sundry other works of a permanent character, were paid for out of this available surplus, aggregating £5,000; much of which would be in other places debited to capital. The balance of £40 was carried to the depreciation and renewals fund, but as the committee considers that this needs to be very considerably strengthened, it is probable that future profits will be applied towards building up a substantial reserve.

❦ ❦ ❦

Appropriation of the Revenue.

PUBLIC lighting is now charged at 2½d. per unit, traction supply 2⅛d., and motive power supply at 3d. and 2½d. The public lighting comprises 72 ten-ampere arc lamps and over a hundred incandescents, the total being 176. During the year under review the public lighting paid 3d. and traction 2¼d. per unit, so that reductions have been effected in all departments. The receipts were obtained from the following sources :—

	Units.	Yielding.	Per unit.
Private consumers took ...	654,034	£13,312	= 4·885d.
Public lamps consumed ...	137,353	1,717	= 3·000d.
First interim total ...	791,387	£15,029	= 4·558d.
Traction sales amounted to	1,298,392	12,172	= 2·250d.
Second interim total ...	2,089,779	£27,201	= 3·124d.
Meter rentals	—	327	= ·037d.
Miscellaneous receipts ...	—	111	= ·013d.
Total revenue	2,089,779	£27,639	= 3·174d.
Units used on works... ...	96,332	(The maximum load was 1·335 k.w.,	
Total accounted for... ...	2,186,111	representing a load	
Utilised on distribution ...	413,336	factor of 17·87 per cent.).	
Total units generated ...	2,599,447		

The gross cost, which includes the maintenance of the public lamps, was 1·648d., capital charges 1d., and the surplus on supply revenue account ·526d., making the total receipts 3·174d. per unit on an average load-factor of 17·87 per cent. The traction and public lighting rates, with their higher load-factors, should, therefore, even at the reduced figures now in force, be profitable, and it would seem desirable to offer rather better terms for motive power, so as to extend this class of custom. The appropriation of the revenue is set out in detail below :—

	Amount.	Per unit.	
Works cost	£11,723	= 1·346d.	
Rates, taxes, management, &c.	2,350	= ·270d.	
Total cost	£14,073	= 1·616d.	
Public lamp maintenance...	279	= ·032d.	
Gross cost	£14,352	= 1·648d.	
Interest charges	4,560	= ·524d.	1·000d.
Sinking fund charges ...	4,144	= ·476d.	
Total actual cost of units sold	£23,056	= 2·648d.	
Surplus for year	4,583	= ·526d.	
Total revenue	£27,639	3·174d.	

❦ ❦ ❦

Uniform Working Expenditure.

IT is a curious coincidence that the total working expenditure last year and the gross cost this year work out at the same figure per unit, *i.e.*, 1·648d.; the amounts were £11,891 and £14,352 respectively, being in the same proportion as the increase in units sold. The changes are all in an upward direction in the totals : 357,766 additional units were sold, earning £3,810 extra, but costing £2,461 more to produce, and the capital charges were £1,034 more than before, owing to the new works carried out. Deducting the latter figure from £1,349, extra gross profit leaves £315, by which the surplus exceeded that at March, 1903. Taking the averages per unit, as the working costs remained the same, and capital charges fell by ·063d., while the surplus was ·066d. less than before; the average at which the sales were made was ·129d. below that for 1902 3. The growth of the output and its relation to the reduction in charges is shown by the following figures covering the period from the purchase of the undertaking by the Corporation :—

Year to March 31.	1897.	1899.	1901.
Units sold, private	131,843	263,465	524.795
,, ,, public	—	1,616	114.205
,, ,, traction	—	—	424,124
,, ,, total	131,843	265,031	1,063,124
Number of public lamps ...	—	24	165
Percentage lost	14·1	6·7	11·3
Maximum load	187 kw.	330 kw.	568 kw.
Total nett working expenses per unit	3·703d.	2·810d.	2·892d.
Total nett interest and redemption charges per unit	2·603d.	3·200d.	1·458d.
Total nett expeuditure per unit sold	6·311d.	6·010d.	4·350d.
Nett surplus	£21	—	—
Nett deficiency	—	£641	£2,793

Year to March 31.	1902.	1903.	1904.
Units sold, private	589,042	624,312	654,034
,, ,, public	117,701	130,297	137,353
,, ,, traction	723,479	977,404	1,298.392
,, ,, total	1,430,222	1,732,013	2,089,779
Number of public lamps ...	166	166	176
Percentage lost	19·9	19·9	15·9
Maximum load	1,143kw.	1,263kw.	1,555kw.
Total nett working expeuses per unit	2·093d.	1·648d.	1·648d.
Total nett interest and redemption charges per unit	1·215d.	1·053d.	·999d.
Total nett expenditure per unit sold	3·308d.	2·711d.	2·648d.
Nett surplus	£368	£5,041	£4,811
Nett deficiency	—	—	—

❦ ❦ ❦

Improvement at Hastings.

THE position at Hastings at the end of the 1903 financial year was rather better than before, but the change from a deficiency of £1,080 to one of £950 does not support the opinion that the undertaking will be self-supporting for some years to come. Lighting only, even at the comparatively high rates obtained, will not allow of much being done to meet the exceptionally heavy capital charges, which come to nearly 2½d. per unit, and absorb almost 50 of the income. The income is bearing a rather greater ratio to the capital expenditure, having increased from 13·10 to 13·64 per cent, while the deficiency has fallen from 6·39 to 5·29 per cent. The changes, such as they are, are in the right direction; and the load-factor is by no means a poor one in the absence of a motor or traction load, being 15·95 per cent. The last published accounts of the electricity works department cover the financial year 1903, and show that—

The revenue derived from sales of current, &c., amounted to		£17,978
And amount received from rates, to		1,000
Making total receipts of		£18,978
While the working expeuses amounted to ...		10,104
Leaving a gross profit of		£8,874
Out of this sum the following requirements were met :—		
Dividends on redeemable stock	£3,553	
Bank interest	943	
Sinking fund	4,311	
Interest on deposits	6	
Bad debts	11	
Total of capital and special charges		8,824
Difference between total iucome and expenditure, credit balance applied to reduce outstanding deficit		£50

❦ ❦ ❦

Sales.

THE rates charged for private lighting were 6d. per unit, or on the special tariff, which had an initial or stand-by charge of 10s. per eight candle-power lamp demanded, with 1½d. per unit for the consumption. Public lighting was charged on the same scale. The average received was over 5d. per unit for private and 4·233d. for public lighting, if all receipts were included. The operation of this scale is interesting, as it would seem very unlikely that the public would favour a method which required a fixed payment of £1 per annum for a sixteen candle-power lamp, yet a large num-

ber of units were disposed of on this system. The actual sales were :—

	Private supply. Units.		Public lighting. Units.	
6d. units	309,186 =	£7,730	—	—
Fixed charge ...		3,325		£1,305
1½d. units	314,476 =	1,965	228,432 =	1,428
Sales by contract ...	—	47	—	—
Interest and sinking fund charges repaid	—	—	—	572
Repairs, attendance, and carbons repaid	—	—	—	724
Totals ...	£623,662	£13,067	£228,432	£4,029

After deducting bad debts the amounts became as follows :—

	Units.	Yielding.	Per unit.
Private consumers took ...	623,662	£13,056	= 5·024d.
Public lamps consumed...	228,432	4,029	= 4·233d.
Interim total ...	852,094	£17,085	= 4·812d.
Meter rentals	—	653	= ·184d.
Sundry receipts and rents	—	229	= ·065d.
Total revenue for year.	852,094	£17,967	= 5·061d.
Units used on works ...	19,490	(The maximum load was 610 kilowatts, corresponding to a load-factor of 15·95 per cent.)	
Total accounted for	871,584		
Utilised on distribution	117,978		
Total units generated	989,562		

Room for Expansion.

THE 104 arc lamps of the Brush-Vienna, Gilbert and Lewes types for public lighting cost about £38 14s. each per annum. The current was sold at 2·871d. per unit, ·601d. was paid for capital charges, and ·761d. per unit for maintenance. The fixed charge on the private supply units sold on the demand system represented 2·537d. per unit, which, with 1½d. running, or consumption charge, made an average total of 4·037d. per unit. The fixed charge on the public lighting units averaged 1·371d. per unit. The number of lamps connected was 34,000. The plant is capable of supplying a larger load than that at present demanded, as it is of 1,200 kilowatts, while the maximum last year was only 610 kilowatts; in other words, the sales could be increased by at least 50 per cent. without additional expenditure being incurred on plant. It is in this direction that success is to be sought; whether Hastings has reached saturation point or not is a question, but we should imagine that, as over a thousand pounds' worth of new business was obtained last year, there is still room for expansion.

Capital Expenditure.

THE first statement above shows the result after including the sum received from the general rate. Eliminating the outside aid, the deficiency was £950, and omitting bad debts, the revenue received was taken up and appropriated thus :—

	Amount.	Per unit.	
Works cost	£7,350	= 2·070d.	
Rates, taxes, management, &c.	1,928	= ·543d.	
Total cost...	£9,278	= 2·613d.	
Public lamp maintenance...	826	= ·233d.	
Gross cost	£10,104	= 2·846d.	
Interest charges	4,502	= 1·268d.	2·482d.
Sinking fund charges ...	4,311	= 1·214d.	
Total actual cost of units sold	£18,917	= 5·328d.	
Less net deficiency for year	950	= ·267d,	
Revenue for year ...	£17,967	= 5 051d.	

The capital expenditure for these undertakings was spread over the following items :—

	Southampton.		Hastings.
Lands	£6,359	...	Expended during previous year £128,944, and during current year (as per accounts) £2,888, leaving a balance of sanctions unexpended of £4,685. Plant capacity, 1,200 kilowatts.
Buildings	35,443	...	
Machinery and plant ...	47,222	...	
Accumulators	6,238	...	
Mains and services ...	38,847	...	
Transformers	2,887	...	
Electrical instruments ..	1,746	...	
Meters	5,486	...	
Public lighting	2,882	...	
Purchase of company...	21,100	...	
Various	4,756	...	
Total capital invested ...	£172,966	...	£131,832

HYGIENE IN ARCHITECTURE.

AN all-important aspect of the public health question is dealt with in the presidential address of Dr. J. F. J. Sykes, before the Society of Medical Officers of Health, the subject being "Public Health and Architecture." It is a matter that has hitherto received far too little attention, the question of sanitation having been for the most part subordinated to the requirements of architectural style, and in most of our finest buildings the problem of sanitation seems to have been carefully evaded.

Apropos of this question, our attention has been drawn to a building material for which hygienic merits of a high order are claimed. It is known as Asbestos-Slate, and is manufactured by the Calmon Asbestos and Rubber Works, Limited, 6, Sheppy Place, Minories. The material is specially adapted for covering all kinds of roofs (wood or iron), and is of the greatest value for walls, in place of match-boarding, and also cheaper than lath and plaster. As a substitute generally for quarry slates, tiles, corrugated iron, or boarding in connection with light buildings, such as hospitals, sheds, and temporary structures, it gives the most successful results. As bearing directly on the sanitation problem, it is pointed out that asbestos-slate is impervious to the ravages of vermin, is not liable to rot, and can be easily and thoroughly cleansed, so that bacilli and germs of infection cannot adhere to it.

The vital importance of some such material as this in the construction of hospitals, infirmaries, and similar institutions, cannot be denied; and in this direction asbestos slate should have before it a wide field of usefulness.

It is, however, not only from the directly hygienic point of view that the material is to be recommended. The manufacturers state that it is absolutely fire-proof, water-proof, weather-proof, and damp-proof, a combination of advantages that should gain for it the widest possible vogue. It is extremely light in weight, but at the same time strong, hard, and durable; easy to work, and it can be sawn, nailed, or screwed, having no tendency to split or crack. It is characterised by high insulating resistance, in consequence of which an always even temperature, unaffected as far as possible by heat or cold, is maintained within walls lined with, or constructed of, this material.

Although asbestos-slate buildings are much lighter, and also cheaper, than is the case with many structures in which heavy materials, such as brick and stone, are used, they compare very favourably in point of stability, and offer the special advantages of being easily and quickly erected and (if desired) taken down for re-erection elsewhere.

The material is made in two qualities, one for roofing and general purposes and one for lining purposes. It is supplied in sheets in thicknesses ranging from ⅛in. upwards, and in various colours.

Our illustration shows asbestos-slate, used for lining the walls of a fever hospital, at Durham. The building, erected 15 years ago, had been condemned by the medical authority as insanitary and not fit for habitation, owing to the wood lining having become defective and so draughty as to be very dangerous to fever patients.

On the recommendation of Mr. Pegge, the city surveyor, the wards were lined with Calmon's Asbestos-slate, and this work has been so extremely successful as to dispose of all former objections to the building, and has rendered the interior very pleasing and comfortable, and the building will now probably last another ten years.

STOURBRIDGE DESTRUCTOR WORKS.

THESE works, which have involved an expenditure of about £5,000, were inaugurated this week. The Stourbridge Council decided several years ago on the provision of destructor works. The scheme carried out includes what is known as a two-cell plant, and will deal with between 7,000 tons and 8,000 tons of refuse per annum. It is thoroughly up-to-date, and the buildings are sufficiently large to deal with the refuse from double the present population of the Stourbridge district. A large Lancashire boiler is provided in the works, and the power, though put to no use at present, will be used probably for pumping sewage at the pumping station of the Stourbridge Main Drainage Board.

J.G.WHITE & COMPANY, LIMITED.
ELECTRICAL. MECHANICAL & CIVIL ENGINEERS
GENERAL CONTRACTORS
22A. COLLEGE HILL, CANNON ST. LONDON. E.C.
TELEGRAMS "WHITTERICK · LONDON" TELEPHONE · 6044 & 6045 · BANK

TRAMWAY TOPICS.

The Award in the Manchester and Pendlebury Arbitration. Purchasing Authority Not Bound to Acquire and Pay for the Depot. More Middlesex County Council Tramways. Tramcars as Parcel Distributors. Running Powers and the Differences Between Arrangement and Compulsion. Something Big in Tramway Contracts.

Manchester and Pendlebury Arbitration.

THE Master of the Rolls and Lords Justices Stirling and Mathew, in the Conrt of Appeal on Saturday, gave judgment in the case of the "Manchester Carriage and Tramway Company, Limited, v. the Swinton and Pendlebury Urban District Council." The district conncil had under statutory powers given notice to the respondent company of its intention to acquire the lines of tramways passing through its district, and the qnestion of the amount to be paid was referred to the late Sir Frederick Bramwell, as arbitrator. By Sec. 43 of the Tramways Act, 1870, a local authority may require the promoters of a tramway to sell their undertaking, or so much thereof as is within the district of the local anthority, npon terms of paying the then value of the tramway and all lands, buildings, works, materials, and plant of the promoters suitable to and used by them for the purpose of their undertaking within such district. The question raised by the appeal was whether the words in the section "within such district" qualified the word "nndertaking," so that a depôt situated outside the council's district, but submitted by the company "to be suitable to, and used by them for, the purpose of such part of the undertaking as was within the said district," ought to be taken and paid for by the purchasing authority.

The Award.

THE arbitrator found that the depôt in question, which was valued at £24,000, was suitable to, and used with, the undertaking; but owing to the way his finding had been stated there was an ambiguity of language which left it open to argument whether he so found as a fact, or, assuming that to be the case, he left, or had intended to leave it, as a point of law for the High Court to decide—whether a depôt, if suitable to, and used with their undertaking, but situated geographically outside the district of the purchasing authority, must, nevertheless, be purchased under a legal liability imposed by Sec. 43; or whether the purchasing authority had only conferred on it an option to purchase it, which it could exercise or not, as it liked. Mr. Justice Channell, before whom the special case was first considered, said he felt bound by the findings of the learned arbitrator, regarded as a finding of fact, but if Sir Frederick Bramwell had been still alive he should have remitted the case, in order that the ambiguity of the language might be cleared up. With some hesitation, his lordship upheld the contention of the company—namely, that the purchasing authority might acquire and pay for this depôt.

Judge's Decision.

THE Master of the Rolls, in the course of a long and exhaustive judgment, said he came to the conclusion, though with some hesitation, that the appeal must be allowed, as in the circumstances he did not think that the purchasing authority was bound to acquire and pay for the depot. Although, therefore, the decision of Mr. Justice Channell would be reversed, he thought that they were expressing the view that the learned judge himself would have expressed had he seen his way out of the legal entanglement which had arisen from the ambignity of the language in which the point had been submitted by the learned arbitrator. The Lords Justices concurred, and the appeal was allowed with cost.

New Lines in Middlesex.

MUCH interest was manifested on Satnrday in the opening for public use of a new and important tramway ronte in the north-western suburbs of London. The new line extends from the Crown at Cricklewood to Edgware, a distance of five miles, and has been constructed by the Middlesex County Council, acting with the Metropolitan Electric Tramways Company, which is working the line under an agreement with the Council. The cars will hold 30 passengers inside and 38 ont, and the fare for the entire distance is threepence, with intermediate penny and twopenny stages; the cars running from 7.20 a.m. to 11.30 p.m. The system adopted is that of the overhead trolley, and the speed laid down by the Board of Trade regulations varies from 12 to 14 miles an hour.

Parcels on Tramcars at Bury.

THE Bury Town Conncil, at its meeting last week, sanctioned a scheme for the collection and delivery of parcels on tramcars. The scheme provides for the conductors of cars travelling into Bury receiving parcels at any stopping place at charges of 2d. np to 7lb., 3d. 14lb., and 4d. 28lb. The parcels will be distributed from the central office to within half a mile of any part of the system, or forwarded by parcels post or train at railway charges. Forward parcels will also be collected within half a mile or a mile of the system at additional charges.

Sheffield Tramwaymen's Clnb.

A LARGE number of the men employed in the Sheffield Tramway Department met last Thursday night, at their recreation clnb in High Street, to enjoy the first entertainment of the present winter season. The entertainment took the form of a concert, the prime mover in the promotion of which being the general manager, Mr. A. R. Fearnley, whilst inspectors S. H. Wallett (secretary of the club) and J. Dickenson (treasurer) saw that all minor details were satisfactorily carried out. A capital programme was submitted, and was thoroughly appreciated.

Employees' Interests at Ayr.

LAST week, at a meeting of the Ayr Corporation Tramway Committee, the application by the manager, Mr. Fred Coutts, for a recreation-room and hall for his men was again discussed and met with a good deal of support, and it was remitted to a small committee, along with the manager, to go more fully into the matter and report as to probable costs. In support of his application Mr. Coutts pointed out that at their monthly social meetings there were always over one hundred present.

Running Powers.

IN our "Notes and Comments" last week we referred to the paper read by Mr. Stephen Sellon before the Tramways and Light Railways Association on the Thursday evening. Mr. Alfred Baker, the General Manager of the Birmingham Corporation Tramways, made an interesting speech during the discussion. Mr. Baker remarked that if compulsory running powers, which Mr. Sellon had preached in season and out, really meant what that gentleman said they meant, there could be no great objection to them. But had the seekers after compulsory running powers always been willing to forego all the profits earned on the lines over which they sought to run? He thought not. In the Birmingham case was it even stated that the British Electric Traction Company wished to make no profit out of Birmingham? If so, everybody had been under a most extraordinary misapprehension. The company moved heaven and earth to persuade Parliament to grant compulsory running powers over the lines of the Corporation within Birmingham, and wonld have succeeded but for the wise and reasonable attitude taken up by the Corporation. That authority was quite as anxious as the company to give proper traffic facilities to the travelling public, and not to cause inconvenience by having a break of the service at the city bonndary. It was willing, therefore, to allow the company's cars to come in from outside districts, bnt it said this must be by arrangement and not by compulsion. The company scorned the idea that a satisfactory, friendly agreement was possible.

A Through Service.

FORTUNATELY Parliament took the view of the Corporation, with the result that arrangements had been made enabling the Corporation and the company to run jointly a through service of cars. The proximity of the Aston boundary to the centre of the city, and the frequency of the service of cars, especially on Saturdays and football match days, rendered it impracticable to adopt there the system of changing car crews, but in cases where the conditions were favonrable he regarded the plan recommended by Mr. Bellamy as the best. The method agreed upon in the case of the Aston line was working exceedingly well, notwithstanding the fact that the company told Parliament that no friendly arrangement was possible. Such a plan would serve well when both parties were anxious to do right and to work well together.

Business Must be Protected.

MR. BAKER did not believe in a dog in the manger policy in tramway matters, but he strongly believed that it was the bounden duty of every authority to protect the business which it had built up for the benefit of its citizens. The danger of compulsory running powers lay in the fact that every authority might sooner or later have to guard itself against unscrupulous persons promoting outside tramways, not in the public interest, bnt with a view to exploit municipal tramways. He saw no justification for an enactment giving general running powers, because he was convinced that wherever there was a legitimate demand for running powers public opinion would be strong enough to make those inclined to be unreasonable come to terms.

Another Parliamentary Strnggle.

THERE appears to be some prospect that in the next session of Parliament there will be a renewal of the fight on the question of compulsory running powers. The Blackpool, St. Annes, and Lytham Tramways Company is seeking compulsory powers over the Tramways of the Blackpool Corporation. The Company offers the Town Council similar facilities over its line to Lytham.

A New Tramway Association.

AT a meeting of tramway managers, held at the Municipal and County Clnb, 4, Whitehall Court, S.W., on the 24th ultimo, it was resolved to constitute a Metropolitan Association of Tramway Managers, the membership area to cover the County of London, Croydon, Bexley, Erith, West Ham, East Ham, Ilford, Barking, Leyton, Walthamstow, South Middlesex, and other districts in close proximity to London where electric tramways are being developed either by municipalities or companies. Mr. A. L. C. Fell, chief officer of the London County Council tramways, was elected chairman. and Mr. H. E. Blain, tramways manager, West Ham Corporation, hon. secretary. The members of the newly-constituted association will meet together at stated intervals, subsequently discussing tramway topics.

Great Tramway Contracts.

TWO of the biggest inclusive tramway contracts which have ever been given out have just been secured by J. G. White and Co., Limited, London. One is for the reconstruction for electric traction of the whole horse tramway system of Belfast, at an inclusive price of £543,404. Of course, there will be

numerous sub-contracts, as Messrs. White do not themselves make steam and electric machinery nor tramway cars, their own speciality being the permanent way. The work is to be completed within nine months. The same company has almost simultaneously secured an inclusive contract for the reconstruction of the Monte Video tramways, also at present worked by horses, and the figure is about £450,000. These two pieces of work thus total about a million sterling. It is of interest to note, as an example of the present tendency, that the Tramways Committee of Belfast Corporation recommended that separate contracts for different branches of the work should be awarded to separate firms, but the Town Council, by a majority, took the view that it would be much more convenient to have only one firm of contractors to deal with, and to make it responsible for everything. Messrs. White and Co. were the contractors for a large part of the permanent way of the London County Council's electric tramways.

❦ ❦ ❦

"Extensions at Dover."

WE have received the following letter from Mr. E. Carden, the general manager of the Dover Corporation Tramways:—"Sir,—Will you permit me to call attention to a slight error in your last week's issue? In quoting the figures comprising my estimate for the proposed extension of this system, the 'number of passengers' is given as '4,268,100,' instead of '426,810'; the extra '0,' of course, puts a queer complexion on the 'receipts.'"

❦ ❦ ❦

Birmingham Tramways Bill.

THE town's meeting held in Birmingham Town Hall on Wednesday night to consider the proposed Tramways Bill was in striking contrast to that held twelve months ago, when the opposition was taken part in by the British Electric Traction Company. The fact that there were less than a hundred people present showed conclusively that the citizens generally are satisfied with the intention of the Corporation to acquire possession of and run the whole of its tramways. The Bill provides for an extensive development of the tramway system in all parts of the city, and includes proposals for the construction of new lines from growing suburbs to the centre of the city, and loops to connect the whole of the lines to reduce the inconveniences of changing cars to a minimum. Alderman Beale, in moving the resolution authorising the promotion of the Bill, regretted that Birmingham was not yet educated up to the benefits of an up-to date tramway service, and said other tramway committees would not hesitate to use their principal thoroughfares in order to obtain a good service. The resolution was unanimously adopted.

❦ ❦ ❦

The Position at Crewe.

A LETTER was read at Crewe Town Council meeting, on Wednesday, from Dr. W. G. Rhodes, of Manchester, inquiring whether the Council would consider the question of a private company constructing electric tramways in Crewe. A decision on the subject was postponed until the next meeting. Another letter was from Mr. Samuel Jackson, of Wistaston, who stated that it was proposed to promote a company for the purpose of acquiring a service of steam motor-omnibuses for use in the borough and outlying towns. The town clerk was instructed to inquire as to the success of municipal omnibuses in other towns and to report to the next meeting.

❦ ❦ ❦

Parcels at Bradford.

ON the preceding page we record the fact that Bury is about to inaugurate a tramways parcels service. Our Bradford correspondent writes us that Bradford is about to embark on a similar enterprise. Up to the present the Corporation has not used its powers in this respect to any great extent, but a good deal has been done in a quiet way, as during the past twelve months about 250,000 parcels have been handled. The new scheme, however, is of ambitious proportions. Premises have been taken for the establishment of central offices and storerooms, and forty-eight sub-offices have been arranged for in all parts of the city. Within a radius of half a mile from the town hall, the traffic will be dealt with by three motor vans; but outside that area the parcels will be delivered in bulk at the sub-offices by the car-drivers. Thence boys will distribute them on wicker trucks, collection being effected by the same means. It is expected that the Corporation will be appointed agent for the railway companies, and passengers' "luggage in advance" will be dealt with as well as parcels. Arrangements are being entered into with some 20 or 30 wholesale firms to stock large quantities of goods at the central depot. When a shopkeeper requires to replenish his stock he will simply present an order, and his needs will be promptly supplied, thus obviating vexatious railway delays. It is hoped to inaugurate the scheme in the first week of the new year.

AN unusual Corporation inquiry is now in progress in Cardiff. Allegations having been made by certain townspeople that the horses owned by the Corporation were badly fed, the Town Council has just begun a formal investigation into the matter. There was a dramatic pause in the proceedings until the men were assured that they should not suffer in their employment if they made any statement.

MUNICIPAL ELECTRIC TRAMWAY RETURNS.

Undertaking.	Date of Opening.	Length of Route.	Total Length Track.	Year ends.	Last Weekly Return.		Corresponding Week 1903.		Total Receipts for Year.	
		Miles	Miles		Receipts.	Passengers.	Receipts.	Passengers.	1904.	1903.
Aberdeen	Dec. '99	2·50	5	May 31	1,098	—	1,066	—	39,588	33,816
Ayr	Sept. '01	6	8	—	174	51,392	168	48,671	10,120	9,626
Birkenhead	Feb, '01	13·52	23·53	March 31	952	199,337	926	193,643	37,558	38,078
Blackburn	Mch. '99	13½	13½	March 25	707	133,724	700	128,537	33,416	30,120
Blackpool	Oct. '84	3	6	March 31	253	—	261	—	42,358	36,456
Bolton	Nov. '99	25	35	March 31	1,719	378,125	1,567	342,042	66,668	66,146
Bournemouth	July '02	11·8	18·2	March 31	706	133,747	734	138,039	52,445	17,637
Bradford	July '98	53¾	95½	March 31	3,607	—	3,314	—	162,147	135,714
Brighton	Nov. '01	6·5	11·75	—	720	163,234	696	167,065	—	—
Burnley	Mch. '02	10·60	10·60	March 31	933	176,456	774	136,472	—	—
Cardiff	Dec. '01	16	30	March 31	—	—	—	—	—	—
Darwen	Oct. '00	4·5	4·25	Dec. 31	—	—	—	—	—	—
Dover	Sept. '97	3·5	4·5	March 31	153	39,468	166	43,148	8,289	8,474
Dundee	July '00	12·56	23·1	March 31	776	—	775	—	—	—
East Ham	June '01	6·6	10·75	March 31	572	217,971	529	204,916	25,846	24,381
Glasgow	Oct. '98; Extens., April '01	7½	143	May 31	13,641	3,591,213	13,142	3,476,404	385,742	365,464
Halifax	—	—			2,187	524,880	2,158	517,920	68,008	61,151
Huddersfield	Feb. '01	—	32	March 31	—	—	—	—	—	—
Hull	July '99	9·5	18·5	March 31	2,066	495,910	1,804	433,168	77,567	67,472
Ilford	Mar., '03	6·5	10·5	—	322	85,823	327	—	16,252	15,555
Ilkeston	May, '03	3·5	4	—	84	21,855	121	31,275	—	—
Leeds	Aug. '97	37	71	March 25	5,180	—	4,854	—	209,916	197,863
Liverpool	Nov. '98, June '99	66	114	Dec. 31	9,273	2,006,992	9,532	2,072,622	497,179	483,457
L.C.C.*	1897, Jan. '99	—	47¼	March 31	11,177	—	9,089	—	440,811	346,551
Manchester	June '01	72	131·50	March 31	11,094	2,278,923	10,565	2,163,914	433,385	415,304
Nelson	Mch. '02	2·75	3·5	—	102	31,002	92	27,143	4,304	3,028
Newcastle	Dec. '01	17	36	—	3,481	792,988	3,341	742,123	—	—
Oldham	Dec. '00	18	28	—	1,278	255,458	1,133	247,650	427,696	41,810
Portsmouth	Sept. '01	15	28	—	1,272	280,237	1,201	260,438	71,672	65,988
Reading	July '03	7½	13⅛	—	511	119,562	491	113,938	—	—
Rotherham	Jan. '03	7½	—	March 25	384	87,412	389	87,173	16,538	14,021
Salford	Oct. '01	32½	59½	March 31	3,773	724,678	3,464	—	145,909	138,040
Sheffield	Sept. '99	32½	59½	March 25	4,387	1,166,184	4,056	1,071,028	169,048	165,643
Southampton	Sept. '98	9⅝	16⅝	March 31	733	133,659	808	157,125	35,210	37,481
Southend-on-Sea	July '01	6·85	—	March 31	—	—	—	—	—	—
Sunderland	July '00	12·27	23	—	1,082	—	1,046	—	45,629	44,651
Wallasey	Mch. '02	0	10·5	March 31	614	117,909	569	109,178	27,146	25,421
Walsall	Jan. '04	12½	13½	Dec. 31	433	78,762	—	—	23,127	—
West Ham	Feb. '04	9·78	12·98	—	930	272,920	—	—	37,727	—
Wolverhampton	April '02	11·258	16·848	March 31	642	151,704	396	79,661	—	—

* Also includes the horse lines.

DICK, KERR & Co., LIMITED,

ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Contractors for Municipal Lighting and Tramway Schemes.

Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

Simple Methods

Are ever the best, and the simplest of all is

The Referee Card Index.

By its use information can be found in a moment, which otherwise might take hours of laborious effort to obtain.

Send for Illustrated Catalogue and Pamphlet to

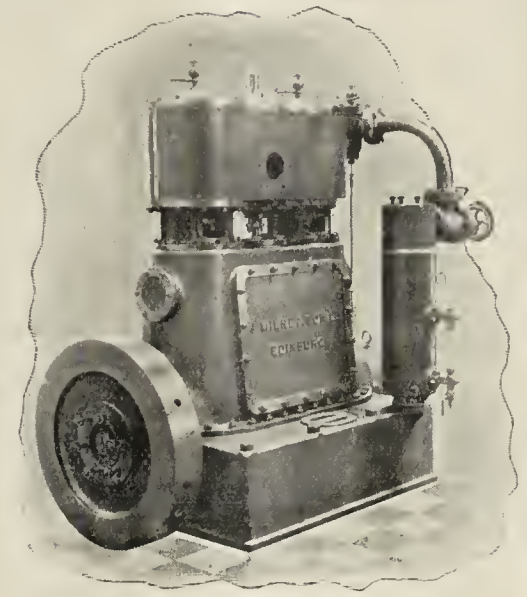
Partridge & Cooper, Ltd.,
191-192, Fleet Street,
London, E.C.

JAMES MILNE & SON, Limited,

Gas, Water & General Engineers,

MILTON HOUSE WORKS, EDINBURGH.

Pumping & Conveying Machinery.



Station Gas Meters & Governors.

QUICK REVOLUTION ENGINE,
Made Simple, Compound, or Triple Expansion, with Fixed or Variable Speeds.

TELEGRAMS:—(A B C Code 4th & 5th Editions) "MILNE, Edinburgh."

ONE CWT. OF HALL'S DISTEMPER COVERS DOUBLE THE SURFACE

that is coated by one cwt. of pure white lead paint.

HALL'S Distemper

PATENTED.

In 70 Shades.
Many will stand Lime.

Not only has greater covering power, but the colours work evenly and remain uniform. Whether applied inside or outside, on smooth wood or walls, or on stone or brickwork, it is equally perfect. It is applied with a whitewash brush, saving 40 per cent. in labour alone.

Sole Manufacturers SISSONS BROTHERS & Co., Ltd., HULL,
who will send Sample, Shade Card, and full particulars on application.
LONDON OFFICE—199B, BOROUGH HIGH STREET, S.E.

WM. GRIFFITHS & Co., Ltd.,

35 to 39, HAMILTON HOUSE, BISHOPSGATE STREET WITHOUT,
LONDON, E.C.,

CONTRACTORS FOR CONSTRUCTION OF TRAMWAYS

AND MUNICIPAL WORK OF ALL DESCRIPTIONS.

QUARRY OWNERS AND STONE MERCHANTS.

LARGE STOCKS ON HAND OF

PITCHINGS, KERB, MACADAM, YORK STONE, JARRAH TIMBER, &C.

TELEGRAPHIC ADDRESS—"GRIFFITHS, STONE, LONDON." TELEPHONES—Nos. 2868 and 2869, LONDON WALL.

Tenders Wanted.

Latest date for sending in tenders in parentheses.

Brushes, &c. E. G. Mawbey, Borough Engineer, Leicester. (December 15.)

Building Cottages and Bathrooms. F. Stevens, Clerk to District Council, Beckenham. (December 19.)

Clothing—Police. W. Thornton, Chief Constable, Town Hall, Gravesend. (December 20.)

Clothing—Police. H. Monckton, Town Clerk, Maidstone. (December 14.)

Clothing—Police. A. G. Young, Town Clerk, Council Chambers, Ayr. (December 19.)

Conversion of School into a Home — Plans invited. W. Thurnall, Clerk to Guardians, Brook Street, Kennington Road, S.E. (December 20.)

Disinfectants. J. Badcock, Council Offices, Spennymoor. (December 17.)

Drapery Materials. H. M. Turner, Watford Place, Watford. (December 12.)

Electrical—Pipe Work and Valves. A. Sockett, Town Hall, Middlesbrough. (December 17.)

Electrical—Steam Dynamo. R. Hilton, Town Clerk, Town Hall, Swindon. (December 20.)

Electrical—3,000 Volt Steam Alternator. R. M. Prescott, Town Clerk, Town Hall, Fulham. (December 20.)

Electric Lighting Installation. F. A. Newington, Electricity Supply Station, 1, Dewar Place, Edinburgh. (December 14.)

Electric Light Wiring, &c. C. Johnson, Clerk to Guardians, Union Offices, Stockport. (December 12.)

Electric Tramways (Shanghai). Messrs. Pook and Co., 63, Leadenhall Street, E.C. (March 31, 1905.)

Electrical—Transformers, Pillars and Switchgear, and Overhead Travelling Cranes, for Johannesburg Municipality. Mordey and Dawbarn, 82, Victoria Street, Westminster, S.W. (December 27.)

Electric Motor Equipment. J. G. Monro, Town Clerk, City Chambers, Glasgow. (December 22.)

Electrical Plant. W. H. Snow, Town Clerk, Southend-on-Sea. (December 21.)

Erection of Reading Rooms. E. Docker, 10, Newhall Street, Birmingham. (December 10.)

Fencing. Chairman of Improvements Committee, Town Hall, Manchester. (December 14.)

Fencing. F. Robey, Council Offices, Hindley. (December 19.)

Fire Escape Stairs. Resident Medical Superintendent, District Asylum, Downpatrick. (December 15.)

Fire Escape Shed. Henry Humphris, Council Offices, The Burroughs, Hendon, N.W. (December 12.)

Fire Station. J. C. Barrowclough, Waterworks Engineer, Batley, Yorks. (December 15.)

Fodder. J. A. Johnson, Town Clerk, Town Hall, Walworth Road, S.E. (December 7.)

Fodder. Borough Surveyor, Town Hall, Swindon. (December 14.)

Footbridge, Subway, &c. Chairman, Works Committee, Town Hall, Hull. (December 23.)

Forage Preparing Plant. John W. Benton, Clerk to District Council, Town Hall, Ilford. (December 12.)

Furniture—School. H. W. Cook, Public Offices, Egremont, Cheshire. (December 17.)

Gates for Level Crossing. C. H. Fry, Clerk to District Council, Erith. (December 12.)

Granite. E. J. Mott, Clerk to Guardians, Fulham, 75, Fulham Palace Road, Hammersmith, W. (December 14.)

Granite. Chairman, Highway and Sewerage Committee, Borough Engineer's Office, Leicester. (December 15.)

Granite Kerb. W. F. Payne, Town Hall, Lower Edmonton. (December 13.)

Groceries, Tobacco, &c. Charles Fitch, Clerk to Visiting Committee of City of London Asylum, Guildhall, E.C. (December 16.)

Heating Public Library. J. B Connolly, Public Library Committee, Drogheda. (December 31.)

Heating, Ventilating, and Hot Water Plant. R. W. Partridge, Asylum Committee Office, 6, Waterloo Place, S.W. (January 23.)

Lease of Bridge Tolls. R. Percy Dale, Town Clerk, Guildhall, York. (December 15.) See advt. in this issue.

Lead Pipes, &c. City Engineer, Guildhall, Worcester. (December 21.)

Libraries—Competitive Designs invited. Chief Librarian, Public Library, Royal Avenue, Belfast. (January 17.)

Loans for Waterworks, &c. J. Taylor, Clerk to Urban District Council, Buxton. (December 20.)

Loan of £500. S. Spry, 53, Albert Road, Middlesbrough. (December 13.)

Meters—Dry. J. Milliken, Town Clerk, Bangor, Ireland. (December 20.)

Needlework Materials. Director of Education, Education Office, Warwick. (December 14.)

Oil-Engines. T. J. Sworder, Welwyn District Council Offices, Hertford. (December 19.)

Painting. J. Bossom, Town Clerk, Barnstaple. (December 15.)

Painting, &c. W. H. Maxwell, Borough Engineer, Tunbridge Wells. (December 13.)

Potatoes. G. Herbert Lough, Clerk to Guardians, Union Offices, Upper North Street, Poplar. (December 14.) See advt. in this issue.

Printing. F. R. Pascoe, Education Office, Truro. (December 12.)

Provisions. W. P. Gipp, Clerk to Visitors, Essex County Asylum, Brentwood. (December 15.)

Pumping Machinery, &c. Competitive Designs and Tenders. J. L. Wheatley, Town Clerk, Town Hall, Cardiff. (December 21.)

Road Materials. J. Bentley, Clerk to District Council, Baildon. (December 12.)

Road Materials. C. H. Mounsey, County Surveyor, Carmarthen. (December 28.)

Road Material and Cartage. W. McIntosh, County Surveyor, Worthing Road, Horsham. (December 31.)

Road Works. Borough Surveyor, Town Hall, Catford. (December 12.)

Road Metalling. W. B. Prosser, Sessions House, Maidstone. (December 17.)

Sanitary Towers. John Carter, Poor Law Offices, Birkenhead. (December 19.)

School Buildings—Remodelling. Competitive Designs invited. J. W. Watkins, Education Office, Llanelly. (January 31.)

Sewer Works. T. E. Pearson, Town Hall, Settle. (December 19.)

Sewer. H. W. Walton, Clerk to District Council, Alnwick. (December 12.)

Sewerage Works. H. M. Turner, Clerk to District Council, Watford. (December 13.)

Sewerage Works. H. Naughton, Clerk to District Council, Easky, Ireland. (December 13.)

Sewerage and Drainage Works. Clerk of District Council, Public Offices, Southall, Middlesex. (December 13.)

Sewers, &c. T. Mitcheson, Clerk to District Council, Public Office, Liversedge. (December 17.)

Sewer Construction, &c. G. D. Byfield, 16, High Street, Barnet, Herts. (December 21.)

Sewer Construction. Henry T. Weyman, Clerk to Wigmore District Council, Ludlow. (December 31.)

Sewer Works. A. Blasdale Clarke, Town Clerk, Bacup. (December 21.)

Sewerage and Sewage Disposal. Francis H. Phillips, Town Clerk, Chippenham, Wilts. (December 13.)

Sewerage Works. E. Mellquhoun, Essex Place, Cheltenham. (December 20.)

Sewerage and Sewage Disposal. H. J. Bracher, Clerk to District Council, 33, Earl Street, Maidstone. (December 21.)

Slaughterhouses. Borough Engineer, Dartmouth. (December 24.)

Stables, &c. Borough Surveyor, Town Hall, Catford, S.E. (December 28.)

Street Works W. F. Payne, Town Hall, Lower Edmonton. (December 19.)

Street Improvements. Clair J. Grece, Town Clerk, Reigate. (December 20.)

Street Lamp-Lanterns for Sale. Engineer, Council Offices, Hendon. (December 12.)

Street and Sewer Work. G. D. Byfield, 16, High Street, Barnet. (December 21.)

Supplies. R. Clay, Clerk to Guardians, 213, Kingsland Road. (December 14.) See advt. in this issue.

Tea. G. H. Lough, Clerk to Guardians, Union Offices, Upper North Street, Poplar. (December 14.) See advt. in No. 618.

Team Labour. M. C. Warne, Surveyor to District Council, Barming, Maidstone. (December 21.)

Tramways—Motor-Cars, Trucks, Motors, &c. C. H. Fry, District Council Officer, Erith. (December 19.)

Underground Conveniences. J. A. Johnson, Town Clerk, Town Hall, Walworth Road, S.E. (December 21.)

Water Mains. D. Rankine, Council Offices, Haywards Heath. (December 10.)

Appointments Vacant.

Latest date for applications in parentheses.

Assistant in Surveyor's Branch of Works Department. Clerk of the London County Council, Spring Gardens, S.W. (December 15.

Assistant Overseer. £60. E. J. Gowen, Clerk of Parish Council, Town Hall, Croydon. (December 13.)

Children's Caretaker. £24. M. Sharman, Clerk to Guardians, Bedford. (December 17.)

Clerk of Works. £3 per week. T. H. Moon, Education Offices, Soho Hill, Handsworth. (December 19.)

Clerk of Works. E. Knightley, Clerk of District Council, Newhaven. (January 4, 1905.)

Clerk of Works. £2 10s. per week. J. Mills, Town Clerk, Town Hall, Chorley. (December 15.)

Deputy Town Clerk. £500. F. Stevens, Town Clerk, Town Hall, Bradford. (December 21.) See advt. in this issue.

Inspector of Food. £120. E. V. Hiley, Town Clerk, Town Hall, Leicester. (December 24.) See advt. in this issue.

Local Secretary. £200. J. H. Nicholas, Secretary to Education Committee, County Offices, Chelmsford. (December 22.)

Male Superintendent of Labour. £30. S. V. Pinniger, Clerk to Guardians, Market Place, Newbury. (December 12.)

Male Imbecile Attendant. £30. J. S. Horn, Union Offices, Burnley. (December 14.)

Master and Matron (Married Couple). £175 and £75. J. Atkinson, Clerk to Guardians, Union Offices, Pilgrim Street, Newcastle-on-Tyne. (December 14.)

Office Clerk. £70. W. Chambers Leete, Town Clerk, Town Hall, Kensington. (December 16.) See advt. in this issue.

Porter, &c (Man and Wife). £50 (joint salary). F. H. Bright, Clerk to Hospital Board, Maldon. (December 17.)

Porter and Portress. £30. J. S. Horn, Union Offices, Burnley. (December 14.)

Relieving Officers (Assistant). £90. E. W. Ogden, Union Offices, Cheetham Hill Road, Manchester. (December 13.)

Relieving Officer, Collector, &c. £120 and 5 per cent. commission. C. Taylor, Clerk to Guardians, Minster, near Ramsgate. (January 5.)

Sanitary Inspector. £120. J. A. Johnson, Town Clerk, Town Hall, Walworth Road, S.E. (January 2, 1905.) See advt. in this issue.

Secretary (Association of Poor Law Unions). £150. H. E. Lawrence, 47, Essex Street, Strand, W.C. (December 31.)

Superintendent of Fire Brigade. £150. F. C. Lloyd, Town Clerk, Town Hall, Croydon. (December 12.) See advt. in No. 618.

Superintendent Female Imbecile Attendant. £30. J. W. Whitworth, Union Offices, Patricroft, Manchester. (December 13.)

Surveyor. £120. W. E. Raley, Clerk to Hoyland Nether District Council, Barnsley. (December 17.)

Water Bailiff and Inspector. 25s. per week. J. Diggle, Town Hall, Matlock. (December 12.)

MESSRS. MELDRUM BROS., LTD., of Manchester, have just received from the Admiralty a contract for one of their well-known "Simplex" Regenerative Refuse Destructors, with steam-generating plant. This is to be erected at Chatham Dockyard in connection with the large Electric Power Plant which is being installed under the direction of Messrs. Preece and Cardew, the Admiralty's Consulting Engineers.

TO CONTRACTORS.

IT WILL PAY YOU
to Subscribe to

THE MUNICIPAL JOURNAL.

6/6 per year, post free.

Office: 12, SALISBURY SQUARE, LONDON, E.C

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS.
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London, N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

PARLIAMENTARY PLANS.
ROBT. J. COOK & HAMMOND,
Lithographers, Tothill Street,
Westminster. (Est. 1860.)

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

ROAD SCAVENGER.
F. COWLEY, C.E.,
Launceston, Cornwall.

SANITARY POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

*** For conditions of insertion in this column address The Manager, MUNICIPAL JOURNAL, 12, Salisbury Square.*

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION

IS FAR IN EXCESS

OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL, 12, SALISBURY SQUARE, LONDON.

IRON and WOOD FRAMED BUILDINGS (EVERY DESCRIPTION),
BUNGALOWS, CHURCHES
AT LOWEST COST.

CHARLES LEATHER & SONS
(ESTABLISHED 1862),
114, MERTON ROAD, and RAILWAY WHARF,
WANDSWORTH, LONDON, S.W.

WILLIAMSON
ASHTON-UNDER-LYNE,
Telephone 320.

FOR
TICKETS
AND
PUNCHES
FOR
TRAMWAYS, &c.

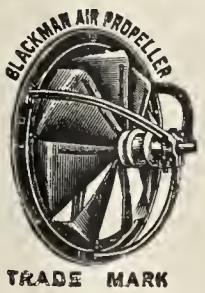
TICKET NIPPERS.

TICKETS, DATING MACHINES, AND ISSUING CASES
FOR RAILWAYS, BATHS, &c.

THE
LIMMER ASPHALTE PAVING Co. LTD.
(Est. 1871.)

Sole Proprietors of the Montrotier Seyssel Mines (Bassin de Seyssel).
Mastic Asphalte for Floors, Roofs, Breweries, Reservoirs, &c.
LITHOFALT MASTIC PAVING.
Highest Award Sanitary Congress, Glasgow, 1904.
Head Offices: 2, MOORGATE ST., LONDON, E.C.

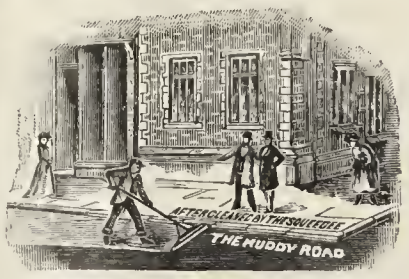
BLACKMAN



ELECTRIC FANS.
GOLD MEDAL
PARIS, 1900.
TRADE MARK
JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

SHEATH BROTHERS,
SQUEEGEE MANUFACTURERS,

Borough Councils and Railway Companies.



Borough Councils and Railway Companies.

87, CITY ROAD, LONDON.

THE BEST JUDGES OF CIGARS.
Now obtain their supplies at
BENSON'S, 61, St. Paul's Churchyard, London
Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards). Samples 5 for 1s., free by post.

EQUIFEX DISINFECTORS

SATURATED STEAM (Patent)

Adopted by the Metropolitan Asylums Board for the Brook Hospital; H.M. War Office for the ROYAL VICTORIA HOSPITAL, NETLEY, and by the Governments of India, Victoria, New South Wales, &c.; and the recent Disinfection Stations of the Boroughs of Lambeth, Fulham, Battersea, Brighton, &c., &c.

Rapidity in Operation. Absolute Immunity from Damage by Scorching. Economy in Fuel. Automatic Control and Record of the Work Done.

The only apparatus complying with the recommendations of the International Sanitary Congress, Buda-Pesth, 1894. Only Medal for Steam Disinfectors, Sanitary Institute Congresse, and highest awards wherever exhibited. Over 1,200 in actual use in all parts of the world.

SPRAY DISINFECTORS, for ROOMS, &c., reduces to a minimum the disturbance of Inmates. Cost a fraction of the time and expense required in use of SO_2, and disinfect with certainty. THOUSANDS IN ACTUAL USE.

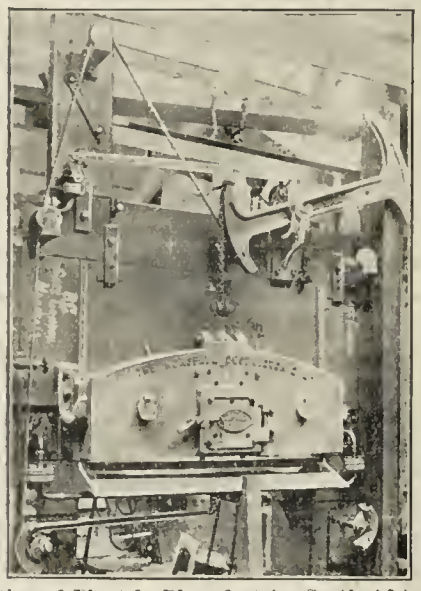
THE PASTEUR FILTER

The only Filter awarded Grand Prix Paris, 1900.

OFFICIAL GOVERNMENT STATEMENT.

"Wherever the Pasteur Filter has been applied Typhoid Fever has disappeared."

J. DEFRIES & SONS, Ltd., 146 & 147, HOUNDSDITCH, LONDON, E.C.



Portion of Plant for Bloemfontein, South Africa.

Silver Medals Sanitary Institute of Great Britain, 1896, 1902 and 1903.

Gold Medal Brussels Exhibition, 1897.

THE

HORSFALL DESTRUCTOR Co., Ld.

LEEDS,

AND

19, OLD QUEEN STREET, WESTMINSTER, S.W.

Telegrams: "DESTRUCTOR, LEEDS" "DESTRUCTOR, LONDON" } A B C and Lieber's Standard Codes used.

Telephone: LEEDS No. 2006 Central. LONDON No. 263 Victoria (G.P.O.)

ENAMELLED IRON

Street Name-plates. Bye Laws. Street Lamp Directions.
Door Numbers. Cemetery Notices.
Hydrant Notices. Parks Notices. Ceiling & Wall Tiling.

ENAMELLED LETTERS—TABLETS OF EVERY DESCRIPTION.

Municipal Authorities are invited to submit Specifications for Tenders to THE ORIGINAL PATENTEES,

PATENT LETTER & ENAMEL Co.,

INNES, GORDON & CO., Ltd., London Agents.

BYRON HOUSE, Fleet Street, London, E.C.

The Best Municipal Work of Reference.

FOR ACCURATE, UP-TO-DATE INFORMATION ON MUNICIPAL SUBJECTS AND STATISTICS AND RESULTS OF MUNICIPAL MANAGEMENT

THE BEST WORK TO CONSULT IS

THE MUNICIPAL YEAR BOOK

Price 3s. 6d. Post free 3s. 11d.

LONDON: EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, FLEET STREET, E.C.

Printed and Published by EDWARD LLOYD, Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ
50

THE
MUNICIPAL JOURNAL

No. 620.—Vol. XIII. FRIDAY, DEC. 16, 1904. REGISTERED AT THE G.P.O. AS A NEWSPAPER. ONE PENNY.

Official Advertisements.

COUNTY BOROUGH OF NORTHAMPTON.

WEIGHTS AND MEASURES INSPECTORSHIP.

THE Corporation of Northampton invite applications from fit persons to fill the office of INSPECTOR and (if required) ADJUSTER, under the Weights and Measures Acts, and as INSPECTOR under the Bread and Sale of Food and Drugs Acts, at a salary of £100 per annum, rising on approved service by annual increments of £5 per annum to £120 per annum.

The person appointed must hold the Board of Trade certificate of qualification or undertake to obtain such certificate within six weeks from the date of his appointment, and will be required to devote his whole time to the duties of his office.

Applications, in candidate's own handwriting, stating age, experience, qualifications, and present employment, with copies of not more than three recent testimonials, and endorsed "Inspector W. and M.," must reach me on or before Tuesday morning, 20th December instant.

Canvassing by or on behalf of any candidate will disqualify.

HERBERT HANKINSON,
Town Clerk.

Guildhall, Northampton.
9th December, 1904.

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

APPOINTMENT OF GENERAL MANAGER OF TRAMWAYS.

THE Tramways Committee of the Corporation of Newcastle-upon-Tyne are prepared to receive Applications for the Appointment of a GENERAL MANAGER, to undertake the complete control and management of the working of the New Electric Tramways. The gentleman appointed will be required to devote the whole of his time to the duties of the office, and not to undertake or engage in any other employment. Salary £700 per annum, with increases of £50 per annum for two years.

Candidates for the appointment are requested to send their applications, stating their age, qualifications, experience, and the date they could enter upon the appointment, and enclosing copies of not exceeding three testimonials of recent date (which will not be returned), addressed "Chairman of Tramways Committee, Committee Clerk's Office, Town Hall, Newcastle-upon-Tyne," and endorsed "Appointment of General Manager of Tramways," not later than 7th January, 1905.

Canvassing will be considered a disqualification.

HILL MOTUM,
Town Clerk.

Town Hall,
Newcastle-upon-Tyne.
10th December, 1904.

Official Advertisements

CITY OF BRADFORD.

DEPUTY TOWN CLERK AND CHIEF ASSISTANT SOLICITOR.

THE Bradford Corporation invite Applications from duly qualified solicitors for the above position. Candidates must be thoroughly experienced in local government law and practice, and have an intimate knowledge of the work of a town clerk's (or equivalent) department in a large district, including conveyancing and common law, and must also be fully competent to act as advocate in conducting important cases before magistrates, &c.

The salary (subject to approved service) will be £500 per annum, with annual increments of £50 to a maximum of £750.

Applications (endorsed "Deputy Town Clerk"), stating age, and setting out the candidate's career and experience, with copies of three recent testimonials, to be sent so as to reach me not later than first post on Wednesday, the 21st inst.

Canvassing in any form by, or on behalf of any candidate, will disqualify, but candidates may send a copy of their application and testimonials to the members of the selection committee (list can be obtained on application at my office), and selected candidates may subsequently send such copies to the other members of the council.

FREDERICK STEVENS,
Town Hall, Bradford. Town Clerk.
3rd December, 1904.

BOROUGH OF FULHAM.

APPOINTMENT OF SURVEYOR'S GENERAL ASSISTANT.

THE Council invites Applications for the Appointment of a GENERAL ASSISTANT in the Borough Surveyor's Department, at a commencing salary of £110 per annum, rising by annual increments of £10 to a maximum of £140 per annum, subject to the usual conditions attaching to the Council's service.

Candidates, whose age should not be less than 25 nor exceeding 35 years, must be neat and expeditious draughtsmen, experienced in surveys, levels, setting out work, and supervising construction.

Applications, endorsed "Surveyor's General Assistant," giving full particulars as to age and qualifications, and accompanied by copies of not more than three recent testimonials, should be delivered to the undersigned on or before Tuesday, the 27th December, 1904. No forms of applications are required or issued in respect of this appointment.

Canvassing the members of the Council, directly or indirectly, is strictly prohibited, and will disqualify.

By order.
R. M. PRESCOTT,
Town Clerk's Office, Town Clerk.
Town Hall, Fulham, S.W.

PROMOTION impossible without good Penmanship. Rapid tuition. Particulars for stamp. N. BROADBENT (Prizeman and Medallist), Alston's College, Burnley.

Official Advertisements

BOROUGH OF SOUTHWARK.

SANITARY INSPECTOR.

THE Council are about to appoint a SANITARY INSPECTOR, at a salary of £120 per annum, rising £10 per annum, on approved service, to a maximum of £130 per annum

The appointment will be subject to the approval of the Local Government Board, and in accordance with the Public Health (London) Act, 1891, and the General Orders of the Local Government Board.

Candidates must be holders of a certificate from the Sanitary Institute prior to December, 1898, or from the Sanitary Inspectors' Examination Board since that date, and be competent by their knowledge and experience to perform the duties of the office, and the person appointed is to devote the whole of his time to the performance of the duties prescribed.

The officer will be appointed to the district known as St. Peter's district or such other ward as the authority, with consent of the Local Government Board, may determine, and will be required to reside within the borough.

The appointment will be made on the understanding that there will be no pension or superannuation allowance.

Forms of application can be had any day at the Town Hall, Walworth Road, S.E.

Applications on the prescribed forms, accompanied by not more than three recent testimonials, and endorsed "Sanitary Inspector," must be sent to me not later than noon on Monday, January 2nd, 1905.

The Council will proceed to make the appointment on January 18th, 1905.

J. A. JOHNSON,
Town Clerk.

Town Hall, Walworth Road, S.E.
2nd December, 1904.

COUNTY BOROUGH OF SUNDERLAND

THE Corporation are prepared to receive LOANS of £50 and upwards on security of the Rates of the Borough, at six months' notice or for a fixed period.

For further particulars apply to Haswell Brown, Borough Accountant, Town Hall, Sunderland.

13th December, 1904.

£25 (TWENTY-FIVE POUNDS) BONUS.

GENTLEMAN (27) desires permanent Berth in a Municipal or Urban District Council Office (seaside or country preferred), having many years' experience in all matters relating to Finance. Able to arrange loans. Undeniable testimonials. Willing to submit bona-fides. Reply, in strict confidence, to A. B. C., care of MUNICIPAL JOURNAL, 12, Salisbury Square, Fleet Street, London, E.C.

In replying to Official Advertisements, please mention the "Municipal Journal."

(Official Adverts. continued on page 1010).

WILL JENKINS

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

If you want the Best

REFUSE DESTRUCTOR,
MECHANICAL STOKER,
or FURNACE,

Write to

MELDRUM

TIMPERLEY, near MANCHESTER,
AND
66, VICTORIA STREET, WESTMINSTER.

12,000 AT WORK.

IDRIS ROYAL MINERAL WATERS

The Purest and Best.

IDRIS & CO., Ltd., Camden Town, LONDON, N.W.; And at LIVERPOOL, SOUTHAMPTON, and CANTERBURY.

IN PREPARATION,

The MUNICIPAL YEAR BOOK, 1905.

OFFICIALLY REVISED—IMPROVED AND EXTENDED.

EDWARD LLOYD, Limited, 12, SALISBURY SQUARE, LONDON, E.C.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

THE

LIMMER ASPHALTE PAVING Co. LTD.

(Est. 1871.)

Sole Proprietors of the Montrotier Seyssel Mines (Bassin de Seyssel).

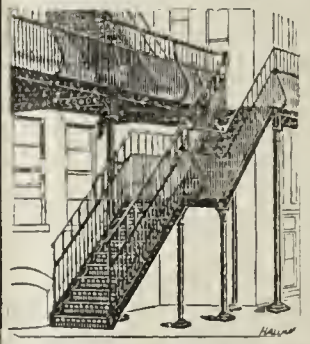
Mastic Asphalte for Floors, Roofs, Breweries, Reservoirs, &c.

LITHOFALT MASTIC PAVING.

Highest Award Sanitary Congress, Glasgow, 1904.

Head Offices: 2, MOORGATE ST., LONDON, E.C.

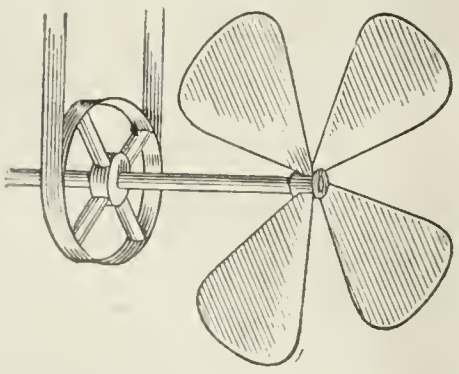
ST. PANCRAS IRONWORK CO., Limited,



SPECIALISTS IN IRON FIRE ESCAPE STAIRCASES

CATALOGUES ON APPLICATION.

171, ST. PANCRAS ROAD LONDON N.W.



THE "CENTURY" LIGHT

FOR

DOCKS, PUBLIC BUILDINGS, FACTORIES.

High Power. Economy. Simplicity.

Nothing to Adjust.

Particulars from

THE AIR LIGHT CO., Ltd.,

LIGHTING ENGINEERS,

53, VICTORIA STREET, LONDON.

THE MUNICIPAL JOURNAL
ESTABLISHED AS "LONDON." TWELFTH YEAR OF ISSUE.

No. 620.—Vol. XIII. DECEMBER 16, 1904.

MORE BOROUGH AMBITIONS.

The Rapidly-Growing Urban District of Chiswick is Preparing to Make Its Second Application to the Privy Council for a Charter of Incorporation. Why the Time is Considered Ripe for Action. The Position To-Day Compared with the Non-County Boroughs of England. New and Coming Municipal Institutions.

ONE by one the growing urban districts within the county of Middlesex are struggling to a higher form of municipal life. The protesting County Council has lost Ealing and Hornsey, and now Chiswick is giving every indication that it wishes to become a non-county borough. Perhaps—who knows!—it aspires one day to become a full-fledged county borough, acknowledging no superior authority.

But the burning question at present is how it shall get its Charter of Incorporation as a non-county borough. A town's meeting will in all probability be held early in the new year, a decided majority of the Council being in favour of the convention.

This will be the second application by Chiswick to the Privy Council for the Charter, the first being in 1900. No reasons were then given for the refusal, but it may be that in the petition there were too frequent references to works which were "in contemplation." Since that date, as our readers know, Charters have been given to Hornsey, East Ham, and Bromley, and a Charter is in course of preparation for Wimbledon.

Chiswick is progressing so rapidly that even now, with several public buildings still unfinished, it fears that it will not make so good a case before the Privy Council as it can when these are finished. There is a disposition consequently on the part of some of the councillors to hold back proceedings for a few months. But meanwhile it is felt that the time is quite ripe for it to take upon itself the higher privileges and responsibilities of a non-county borough. Its rapid growth in population and rateable value are shown by the following figures:—

[*Photo by* CHISWICK "TOWN HALL." *Wyndham, Acton.*]

	Population.	Rateable value.
1861	... 6,505 ...	19,607
1881	... 15,972 ...	84,509
1891	... 21,963 ...	117,982
1901	... 29,809 ...	—
1904	... 32,000 (estimated)...	217,019 (estd.)

Now of the 150 non-county boroughs in England, only 40 have a larger population than Chiswick, and only 16 a larger rateable value. The average rateable value per head of population for England is £5 19s. 9d. as compared with Chiswick, which is within a fraction of £7. Another considerable point

in favour of this western suburb of London is that the debt of the Council is small, being only £160,000—considerably less than one year's assessable value; whereas the restriction in the Public Health Act, 1875, is two years' assessable value.

Further, the rates of the district are below the average of the districts near London, and the properties and undertakings of the Council are considerable. It is the owner of the handsome town hall, shown in our illustration, which comprises a large hall, smaller halls, and numerous public offices, recently enlarged at a cost of £22,000. For the good of its people, the local authority holds very valuable open spaces, including three commons and a recreation ground. There are also two open spaces known as Chiswick Park Club (12 acres), and the Royal Horticultural Gardens (13 acres), belonging to private persons or societies.

Historic Residences.

Some well-known historic residences are within the parish of Chiswick. The Duke of Devonshire formerly owned a great deal of the land, just as he now holds Eastbourne. Chiswick House, the property of his Grace, where the present King lived for some years when he was Prince of Wales, is perhaps the best known. Hogarth House, where Hogarth lived for many years, is still standing.

The Council owns a commodious fire station, erected at a cost of £7,000, with up-to-date appliances, and there is a volunteer fire brigade. Adjoining is a public mortuary and a parish depot for stables, stores, workshops, forges, cart sheds, &c. A new isolation hospital has recently been erected by the local authority at a cost of £12,500, and a free library, extended at a cost of £1,000. It has now acquired a site for the erection of public baths, and is proceeding to erect the same at a cost of £16,000.

A site has also been acquired for the erection of workmen's dwellings, and an application is before the Local Government Board for sanction to a loan of £11,000. Adjoining the Council's sewage disposal works additional eighteen acres of land are being acquired for the purposes of constructing filter beds, settling tanks, &c., and for the purposes of a large works depot. A Horsfall refuse destructor is being erected at a cost of £8,000. In connection with these works, flag-making plant, new gas engine pumping plant for pumping the sewage, together with offices, caretaker's lodge, and other buildings, are being erected. The Council's engineer, Mr. J. H. Abbott, is preparing the scheme for the sewage works extension.

The Council has jurisdiction over 104 acres of the foreshore of the Thames, and is putting forward two very noteworthy proposals to add to the attractiveness of the district.

Big Thames Embankment Scheme.

The first is to build an embankment 60ft. wide on the foreshore for the distance of about a quarter of a mile, and it is hoped ultimately to extend the same as buildings are erected a further distance of upwards of a mile. The second proposal is a new lock and weir on the river, which is receiving the active support of the Council, of landowners and others.

The parish and district of Chiswick are within the Poor Law Union of Brentford and within the Parliamentary Division of Ealing, and are also within the metropolitan police area. Petty sessions are held daily before the stipendiary magistrate, sitting at the West London Police Court. An Order is to be made immediately constituting Acton and Chiswick as a portion of the Willesden Petty Sessional Division, and a weekly Court will be held at the Town Hall, Chiswick. It is anticipated that Acton and Chiswick will in a few years be constituted a separate Petty Sessional Division, with a Sessions House at Acton.

Between the years 1858 and 1883 the parish and district of Chiswick were under an authority for local government purposes known as the Chiswick Improvement Commissioners, and in the latter year were constituted a local government district, with a local Board, within the meaning of the Public Health Act, 1875. Upon the passing of the Local Government Act, 1894, it was formed an Urban District Council, consisting of eighteen councillors, elected by two wards, nine from each ward.

Last March an order of retirement for one-third of the Council annually came into operation, which will lead to greater continuity in policy and smoothness in administration.

The district under the jurisdiction of the Council of Chiswick extends for an area of 1,349 acres, of which 700 acres are already built upon, and building operations are continually proceeding. It is practically the sole local authority in the district, nearly all the powers, duties, and liabilities of the overseers having been transferred to it under the provisions of Sec. 33 of the Local Government Act, 1894. It is the burial authority, and possesses its own burial ground within the district. This comprises an area of seven acres, of which four acres were acquired two years ago, and it is estimated to be sufficient for the needs of the parish for the next 30 years.

The Council is, of course, the education authority, and stands unique in that it has no denominational schools within its district. The clash of the creeds is there unknown. As the school authority it has recently erected a new three-storey school, at a cost of £22,000.

Some Advantages of Incorporation.

The clerk of the Council (Mr. Ernest F. Collins) has prepared a very able report on the matter, and has just presented it to the Incorporation Committee of the Council. It deals with the advantages of incorporation from a general standpoint—a subject very thoroughly covered by articles in past issues of the *Municipal Journal*—and the comparative statistics of existing non-county boroughs have been culled from the *Municipal Year Book*. It sets forth, *inter alia*, that the status of a municipal borough is higher than that of an urban district council. Chiswick certainly would have additional powers, dignity, and importance as a municipal borough. A better standing and more weight and value would attach to any petitions, representations, or applications to Parliament, and the Government Departments—for the Government has, in many statutes, distinguished between a municipal borough and an urban district, to the disadvantage of the latter. In several recent Acts a municipal borough of 10,000 inhabitants has been placed on an equality with an urban district of 20,000. That opinion is no doubt reflected in many ways and directions to the disadvantage of even a large urban district, despite its large population, rateable value, and importance in other ways. The greater state and ceremony attendant upon the functions of a corporation must not be ignored. The general public do appreciate them, although their value may be a spectacular one only, and, in the case of a newly-fledged borough could not, for one moment, be compared with those of an ancient and historic Corporation. The mayor of a borough is entitled to precedence, socially and otherwise, in all matters appertaining to the borough, and is recognised as the head of the local community, both officially and socially. Far more importance and dignity attaches to the office than that of chairman of an urban district council. The calls upon the mayor's time are more numerous. The mayor in a borough is an *ex-officio* justice of the county during his year of office and for one year afterwards. Corporations are empowered to pay the mayor a salary. The matter is, however, entirely within the borough council's direction, and in no way compulsory. In many towns no salary is paid, and in others small sums are allowed to cover certain expenses. One view of this matter is sometimes taken that, in the case of a gentleman who for many reasons it might be desirable to appoint as mayor, and yet whose financial position might preclude his acceptance of the position, the provision mentioned provides the means of overcoming the difficulty.

That these and other advantages are to some extent realised in the district is shown by the fact that the petition sent to the Privy Council in 1900 contained 1,340 signatures, and there was a supplemental petition signed by 400 ratepayers and property owners.

CHEAP COTTAGES EXHIBITION.

ON Tuesday afternoon, in the Birkbeck Bank Chambers, London, was held the first meeting of the organising committee of the exhibition of cheap cottages and building materials which it is proposed to hold in the summer of next year near Hitchin, in Hertfordshire.

The promoters are "The *County Gentleman*, Limited," and the First Garden City Company, Limited. The cottages are not to cost more than £150, this being estimated as the lowest figure at which landlords can build labourers' cottages and at the same time ensure any return on the outlay. It was announced that many prominent provincial land-owners had associated themselves with the project, among those who had consented to become patrons being the Duke of Devonshire (who had promised £100 towards organising expenses), the Earl of Ducie, Earl Roberts, the Earl of Jersey, Lord Avebury, Lord Brassey, the Bishops of Hereford and Chester, Lord Heneage, Lord Robert Cecil.

The *County Gentleman* is also contributing £100. Substantial prizes will be offered to builders competing, and many of the best-known firms have applied for space.

GLASGOW OCTROI.

PROPOSALS OF THE COMMITTEE ABANDONED.

THE Town Council of Glasgow at a meeting on Wednesday definitely abandoned the proposals to levy a tax upon vegetables, fruit, and clothing on sale within the city boundaries.

The decision, it is understood, has to some extent been governed by advice of the Corporation Parliamentary agents in London, who were consulted by the town clerk upon the advisability of introducing such a tax into the body of a Parliamentary Provisional Order.

The abandonment of the scheme has been hailed with unbounded satisfaction by traders in Glasgow, who were much alarmed at the proposals brought forward.

"MERSEY CITY."

Proposed Federation of Liverpool, Birkenhead, and Bootle. A Huge Scheme. How the Present Arrangements Overlap and Produce Wasteful Administration. The Advantages of Large Local Government Areas. The Assets of the Three County Boroughs.

SEVERAL newspapers have this week announced that a scheme is on foot for the federation of the county boroughs of Liverpool, Birkenhead, and Bootle. The amalgamated community would be known as "Mersey City," and would consist of nearly a million inhabitants. Here are some of the principal facts relating to these boroughs expressed in tabular form :—

	Population.	Rateable value.	Area.
		£	Acres.
Liverpool ...	710,337	4,114,876	17,792
Birkenhead ...	114,814	606,465	3,850
Bootle ...	58,556	527,143	1,576
Total ...	883,707	£5,248,484	23,218

Although the scheme has not yet been put forward in an official form, negotiations, we understand, are proceeding. The suggestion is that by means of a joint conference, established on a permanent basis, many mutual interests would be advanced. The feeling is growing, not only in the Liverpool district, but throughout the country, that it is an anomaly that, while the non-county boroughs and other local government areas within the administrative counties are associated for united action by means of county councils, the county boroughs remain isolated, and without any machinery for concerted counsel or decision.

Advantages of Federation.

Among the advantages looked forward to is the establishment of a universal penny fare for Liverpool and Bootle, and probably through booking arrangements with the Birkenhead and Wallasey tram systems. Some enthusiasts have in view the freeing of all the ferry services at the expense of the whole community.

The ferry charges are regarded by up-to-date people as mere relics of the old toll-bars on the highways, and it is argued that the highways of the Mersey should be as free as Dale Street, Liverpool, or Argyle Street, Birkenhead. There are visions, also, of the Mersey bridged and tunnelled by municipal enterprise.

Of first-class importance, also, is regarded the idea that the unified municipal authority should embrace the whole of the dock system on both sides of the river. This view of the matter would necessitate the inclusion in the scheme of the urban district of Wallasey, whose area comprises a large slice of the docks on the Cheshire side.

A Self-Contained Community.

The three boroughs of Liverpool, Birkenhead, and Bootle, as the majority of our readers are aware already, are, for all practical purposes, one self-contained community; and it is doubtless this fact of common interest that is responsible for the present proposal. It is becoming increasingly evident that for local government purposes the larger the administrative area the better.

In his book, entitled "Anticipations," Mr. H. G. Wells has demonstrated the absurdity of limiting local government areas for such purposes as tramways, electric lighting, water, gas, and other general supplies. It is ridiculous that a tramway should be unable to run beyond a certain point because of the existence of a purely artificial boundary. In practice, the system leads to waste and unnecessary overlapping. Many plants of various kinds have to be installed when one of each kind should suffice; and the public is put to inconvenience to which it ought not to be subject. A glance at the municipal position of Liverpool, Birkenhead, and Bootle will show how in these cases these drawbacks are intensified.

Liverpool.

Liverpool supplies electric light and water, and owns electric trams, markets, artisans' and labourers' dwellings, extensive baths and washhouses, free public libraries, museums, a nautical school, six city hospitals for the treatment of infectious cases, &c. It already supplies Bootle, Chorley, and other adjoining districts with water. The city is rich in real and personal estate. The income from renewal and sale of leases for the year ended December 31st, 1903, was about €45,109, yearly rents came to £16,056, rents from an estate in Birkenhead £9,097, Kensington Fields estate £5,709. The total income from the estates, together with £7,900 in interest on loans and other receipts from reserved rents and miscellaneous sources, was £109,394, and the expenditure was £25,034. The estates are, therefore, a very valuable asset. St. George's Hall is corporate property, and was erected out of the profits of the docks. Up to 1858 the Corporation was the dock authority, in which year the Mersey Docks and Harbour Board was created. The duties of paving, sewering, and watering the city were in the hands of Commissioners until taken over by the Corporation in 1845. The Hospitals Committee acts as port sanitary authority, and has jurisdiction beyond the city limits.

Birkenhead.

Birkenhead draws the water supply from within the borough, has its own gas and electric lighting undertakings, electrical tramways, baths, libraries, a cemetery, markets, abattoirs, dust destructors, magnificent parks, and a steam ferry service. It owns ten steamers for passengers and goods. The Corporation has erected a handsome new town hall, a new infectious diseases hospital, laid out Hamilton Square Gardens, built 88 artisans' dwellings, &c. Birkenhead is naturally closely associated with the control of the Mersey, and the shipping interest is represented on the Mersey Docks and Harbour Board. The Corporation provides police service for its side of the harbour, the expenses of which are paid by the Harbour Board.

Bootle.

Bootle, which Liverpool unsuccessfully sought to absorb last year, has made remarkable progress. In Bootle is situated an important part of the Mersey Dock and Harbour Board system, including the Hornby, Alexandra, Langton, Brocklebank, and North and South Carriers' Docks, having together an area of about 109 acres. The Corporation maintains a successful electric lighting system, and supplies electric energy for the tramways, which are leased to the Liverpool Corporation. The district receives its water supply from the Liverpool Corporation, and its gas is supplied by a Liverpool company. The town possesses a fine town hall and municipal offices, free libraries, a museum, open-air and other public baths, gymnasia, assembly rooms, police-courts, parks, recreation grounds, an isolation hospital, and a technical school, the Corporation spending about £8,500 every year on higher education.

How It Could Be Done.

A glance at this summary shows, as we have said, that these county boroughs are really one in fact though three in name. The only question for consideration should be on what terms the federation should be effected. It could be brought about in either of two ways. The three towns could be amalgamated into one county borough, in which case they would lose their individual characteristics, or a joint authority could control those services that are general to all, while leaving to the local councils the administration of details affecting each only. In the latter case, the separate existence of Liverpool, Birkenhead, and Bootle would be preserved, while the principal objects desired by the federalists would be attained. A scheme of the latter character would, however, be based upon sentimental considerations almost entirely, and the most statesmanlike policy would apparently be to create one large county borough, treating it as an organised unit for all purposes.

POLICE TELEPHONES.

EDINBURGH FOLLOWS THE EXAMPLE OF LIVERPOOL.

SOME eight years ago a system of police telephones was installed at Liverpool, and has worked with conspicuous success. Edinburgh has now adopted a similar scheme, and already 24 boxes are in operation in the four police divisions of the city. In addition, it should be stated there are ordinary fire signal-boxes in direct communication with the central fire station at Lauriston.

The most ingenious feature of the police signal system is the arrangement whereby the operator at the central police station in High Street may readily establish communication with the policeman on the beat. On account of the fewness of the boxes, the system, of course, has not yet a fair chance, but when these become more numerous communication should be speedy. In the centre of each signal-box is a tiny round disc, like a miniature bull's-eye, visible to the passer-by through transparent glass let into the cover of the signal-box. This disc is coloured red.

Should the operator at the central station desire to call the attention of the policeman in a particular beat, all he has to do is to turn a lever. Instantly the discs of every signal-box in the beat operated by the lever show a conspicuous white. The policeman on the beat, who by force of habit keeps an eye on the discs, seeing the white, understands he is being silently "rung up" by headquarters. He opens the signal-box with the key with which he is provided, unhooks the telephone receiver, and in a few seconds is conversing with the "office."

Should he have occasion to use the signals, he can have recourse to any of the half-dozen levers in the box, whose purposes are distinctly labelled. There is a lever to signal an outbreak of fire, a second to announce that a serious fire is raging, a third that the ambulance is wanted, a fourth that the police wagon to remove a prisoner or a "drunk" should be turned out. A fifth lever indicates that a force of policemen is wanted at a particular spot.

The operator is able to call up a police waggon, and as it proceeds to the spot where assistance is required it quietly picks up its load of constables *en route*. This last-mentioned lever is only to be used in case of riot or grave public danger. Then there is an ordinary telephone lever by which messages can be transmitted in the usual course of police duty.

At the Central Office the equipment is equally interesting and marvellous for its simple ingenuity. Each signal-box in the city is connected up with a receiving instrument, there being 20 boxes to each recorder. At present in Edinburgh there are three recorders in operation. Each recorder is fitted up with the usual telephone bell, which calls the attention of the operator that a message is being sent. Immediately there is telegraphed on a roll of white tape the nature of the message.

The dashes which the instrument records are quickly read by the central operator. If it is a fire signal, he instantly calls up the brigade to the scene; or if it be any of the other signals, he is able to put the police machinery in operation to meet the requirements. Thus in a few minutes a waggon full of policemen may be conveyed to surround a "burgled" house, or an ambulance horsed to attend to a street accident. The time at which the message has been received is also stamped on the tape, this being automatically controlled by an electrical clock.

It will be seen that the possibilities of the system from the police point of view are very great. The National Telephone Company has been responsible for the installation, which in several points is an improvement upon the admirable system in Liverpool, and it is claimed for it that it is unequalled in any city in the world. Mr. Richard York, one of the company's electricians, has been in charge of the work, and a satisfactory test of the new method was given last week in presence of some of the magistrates, Mr. Ross, the chief-constable, giving the necessary explanations.

EDUCATIONAL NOTES.

The Local Government Board and Medical Certificates. Too much Detail at Birkenhead. Birmingham and its Babies. Excluding Children at Exeter. Fees at Secondary Schools. What the L.G.B. has to Tell Lowestoft about Exchequer Grants, and Worcestershire about the 2d. Rate. Surrey and Essex in Trouble re the Training of Teachers.

Bexhill.—The Local Government Board has informed the committee (with reference to the question of the legality of payment for medical certificates) that the onus of supplying evidence of non-attendance at school rested upon the child's parents; that if, through poverty, the parent did not obtain a certificate, and the education authority required one in order to decide to prosecute or not, the Board thought that a reasonable cost of obtaining such certificate would be a legal charge upon the rates.

Birkenhead.—The Education Committee has appointed a special committee to consider and suggest some method by which the ordinary sub-committees may be relieved from the necessity of considering matters of detail.

Birmingham.—The Education Committee has issued a circular containing exhaustive suggestions on the training of babies.

Bristol.—The Education Committee has sanctioned the use of certain of its schools for soup kitchens should circumstances necessitate it.

Cumberland.—The Education Committee has drafted a scheme for the use of endowments of schools within its area. The chief provisions are that the endowments shall go towards the up-keep of the schools, the payment of rates, and the remainder to the provision of scholarships for pupils or pupil teachers.

Essex.—A special committee has been appointed to report upon the desirability of establishing some course of study for the third year uncertificated teachers, with a view of their obtaining the teacher's certificate.

Exeter.—The Board of Education has written to the Education Committee respecting the exclusion of children from outside the municipal area. The Board expressed the opinion that Sec. 7 (1) (a) of the Act gives the education authority the power—as between it and the managers—to give directions regarding the exclusion of particnlar children from a school for whatever reason, but that it was open to the managers to appeal to the Board under Rule 7 (3).

Gloucestershire.—The Education Committee decided, subject to the approval of the Board of Education, in order to afford facilities to children whose parents wished them to attend church or some other place of worship, that it would be prepared to receive applications from managers that, on specified days, not more than six a year, the schools should be open only during the hours set apart for secular instruction.

Isle of Wight.—The Board of Education disagreed with the education authority as to the necessity of a voluntary school and also as to the suitability of the premises. The Board has accordingly put into force the Local Authority (Default) Act, and has appointed managers for the school in question.

Leeds.—The Board of Education has called attention to the proposed tuition fee of 9d. per week in the higher grade school, and suggested that a fee so low was open to serions objection on educational grounds. The Board considered that, unless in very special circnmstances, a tuition fee of not less than £3 per annum should be imposed. The Board, however, does not propose to take any action for the present.

Liverpool.—The Education Committee granted the request on behalf of the managers of Roman Catholic schools to be allowed to close them on the 8th December, being a feast day.

London.—The Education Committee has received particulars of a draft scheme from the Board of Education, proposing to allocate the sum of £40,000 for the advancement of domestic science teaching under the will of the late Richard Berridge. One condition is that all children eligible for exhibitions must be scholars at National schools. The scheme is to operate in England and Wales.

Lowestoft.—The Board of Education states that the estimates for each financial year only provide for payment of one year's grant for each school; that the institution of a system of quarterly instalments of annnal grants would involve the anticipation in one financial year of grants which do not mature for payment until the following financial year; and added that the fnnds placed at the Board's disposal by Parliament are not sufficient to enable this to be done.

Northamptonshire. — The Education Committee has offered the managers of volnntary schools 7d. per head per child on account of "wear and tear" for the present year. This grant is to be limited to schools which have been certified by the authority's officers as in a proper condition when taken over.

Oxford.—Twenty-five scholarships are to be offered each year to boys and girls between 14 and 16 who desire to become pupil teachers. The scholarship is tenable for two years, £5 for first, and £7 10s. for the second year.

Radnorshire.—The Board of Edncation has informed the Education Committee that it had no power to give instructions respecting the giving of religious instruction in voluntary schools.

Ripon.—An undenominational hostel has just been opened in connection with the Ripon and Wakefield Training College. The hostel has been erected near the college, and accommodates 22 students. It is to be managed by a joint committee of Chnrchmen and Nonconformists.

Rochdale.—The Education Committee has decided not to permit any prizes being given in the schools other than those under its own rules.

Surrey.—The Education Committee has appointed a standing committee to inquire into the training of teachers. The terms of reference include the instruction of uncertificated teachers for their certificates, and the training of certificated teachers who have not been through a college course.

Wiltshire.—The Board of Education has stated, in reply to the Education Committee, that the provision of a stove, being part of the heating apparatus, should be made by the managers of a voluntary school, and not by the local education authority.

Worcestershire.—The Education Committee has been informed by the Local Government Board that so long as the council's expenditure was within the prescribed 2d. rate there was no limit as to the amount which it might call upon individual districts to pay for the provision of higher education in the respective districts.

PUBLIC LIBRARIES FOUNDER.

IN Jnly, 1903, Mr. J. Passmore Edwards offered to present to the City Council a marble bust of the late Mr. William Ewart, M.P., the promoter of the first Public Libraries Act, to be placed in the public library, Great Smith Street, which was the first pnblic library erected under the Public Libraries Acts in London.

The bust has now been completed, and is to be unveiled by the Mayor of the City of Westminster (Major-General Lord Cheylesmore) to-day (Friday) at the Great Smith Street Library.

Mr. J. Passmore Edwards was annonnced to attend the ceremony.

TAXATION OF GROUND VALUES.

UNSATISFACTORY ATTITUDE OF THE GOVERNMENT.

AT the Westminster Palace Hotel on Monday a meeting was held of the committee appointed by the Conference of Rating Authorities on the question of the taxation of ground values. Bailie Ferguson, of Glasgow, presided, and there was a large attendance of municipal representatives.

It was reported that, as arranged at the conference held in October, the Prime Minister had been asked to receive a deputation from the conference, but that he had suggested that the conference should approach the Local Government Board, as in his opinion, at the present time, the question was one for that department. Accordingly, negotiations had been entered upon with the Local Government Board, but the President of the Local Government Board (Mr. Walter Long) had replied that he had already dealt with the subject a year ago, when he had received a joint deputation from the Conference of Rating Authorities and the Association of Mnnicipal Corporations, and that he had nothing to add to what he then stated, and it did not appear to him there would be any advantage in his receiving a further deputation on the same subject.

The Conference Committee passed a resolution expressing regret at the decision of Mr. Balfour, and expressed the opinion that, inasmnch as the second reading of the measnre received the approval of the House of Commons last session by a majority of 67 votes, and there were now associated with the movement some 450 rating authorities in the United Kingdom, the measure could not now be regarded as departmental, as suggested by Mr. Balfour, and they hoped that the Prime Minister would see his way to reconsider his decision. Arrangements were then made for the ballot for private Bills next session.

BRADFORD SCHOOLS' BATHS.

A NEW SCHEME.

THE Baths and Edncation Committees at Bradford have at last arrived at a clear understanding upon the question of the management of the schools' baths in the city, and it is hoped that the new scheme which the Baths Committee on Monday approved of, and which the joint committees had accepted at a meeting earlier in the day, will remove any possibility of friction between the two bodies in the future.

Under the new arrangements, matters relating to the discipline and instruction of the children will be controlled by the Education Committee, and the whole of the staff at the baths, with the exception of those engaged in this work, will be under the control of the Baths Committee, and will be responsible to the baths engineer and superintendent for the due performance of their duty.

The ablutionary baths are to be given by assistants in an annexe opening into the swimming hall where possible, and certified male and female instrnctors are to instruct the boys and girls in the art of swimming.

The baths are to be used by scholars on certain days of the week, and they will be open to the public only on the remaining days. The number of days in each week is to be decided by the Education and Baths Committees. A ticket clerk responsible to the Baths Committee will be in attendance for the sale of tickets, the custody of money, and the keeping of the necessary books when the baths are open to the pnblic.

The allocation of the dnties of the staff is to rest with the Baths Committee, except so much as relates to discipline and instruction of the scholars, when they will be subject to the snperintendents of the Education Committee.

The scheme now awaits the sanction of the City Council, and no difficulty is anticipated in that direction.

LONDON WATER PURCHASE.

An Approximate Balance-Sheet of the Largest Municipal Water Purchase Scheme ever Carried Out. The Ratepayers Stand to Save at Once about £95,000 a Year. The Handicap of the Companies' Huge Awards.

THE London Water Board has now completed the purchase of the eight metropolitan companies—the biggest thing ever undertaken in municipal water enterprise. The final report of the Court of Arbitration in the New River case represents the last stage in the transfer procedure, and it is now possible for the London ratepayer to estimate—at least approximately—the effect of the purchase upon his demand note. "Shall I have to pay more, or shall I have to pay less, for water?" is the question he is asking, and the answer is that, although there will be a saving on the year, his individual payments will for some time remain almost as they are now.

The awards of the Court having all been delivered, and the cases finally disposed of, with the exception of the ascertainment of certain costs in the case of the East London, Grand Junction, and Southwark and Vauxhall Companies, the special Arbitration Committee of the Water Board has been able to prepare a statement showing the approximate financial result. It must, however, be borne in mind that until various items have been settled, such as the Board's and the New River Company's costs, the costs above mentioned in the case of three of the companies, the directors' compensation, stamp duty, &c., the total liability placed upon the Board in respect of the transfer of the undertakings cannot be precisely determined.

Sinking Fund Clause.

Before proceeding further it will be as well to indicate the nature and functions of the "Chamberlain's Sinking Fund," which has had a very important influence upon the awards. The operation of the sinking fund clause is explained in the following paragraphs of the report of Lord Llandaff's Commission, viz.:—

> [Paragraph 63.] . . . Whenever a company obtains power to borrow money on debenture stock—and since 1886 no company has obtained power to increase its capital in any other way—the clause assumes that the money so borrowed earns profit, at the average percentage of the dividend or interest paid on all the capital of the company, whether share capital or loan capital. The excess of that average percentage over the interest payable on the debenture stock issued, plus 1 per cent. for management of such debenture stock, is taken as the profit earned by the new capital, and the company is required to pay the whole of the excess to the Chamberlain of the City of London, as trustee, for the purpose of purchasing and holding shares of the company, and of investing the dividends thereon, with a view to ultimately extinguishing the capital of the company, or for such other purposes as Parliament may from time to time determine.
>
> The effect of the clause is, therefore, to prevent any additional value accruing to the undertaking from the new loan capital and to withdraw from the otherwise divisible profits of the company, the sum paid over to the Chamberlain for the benefit of possible purchasers in the future.
>
> [Paragraph 68.] . . . Whatever differences of opinion may exist as to the policy of Parliament in subjecting the companies to these clauses, the deliberate intention seems to have been that fresh borrowing powers should be granted to the companies, only on condition that the future profits assumed to result from additional expenditure, should be appropriated for the benefit of a purchaser representing the interests of the public.

The question of this fund was the subject of an appeal to the Court of Appeal, and subsequently to the House of Lords. In order to facilitate the delivery of the awards, the Court of Arbitration delivered its awards in four of the cases in alternative forms, the first on the basis that its judgment with regard to the sinking fund was correct (namely, that the undertakings of the companies should be valued as subject to, and not free from the payments to the sinking fund), and the higher figure on the assumption that that decision was wrong.

Over a Million Saved.

The difference between the two alternative awards in the four cases in question will indicate the amount which has been saved in the compensation awarded by the operation of the sinking fund clauses. This difference is as follows:—

East London Company	£400,000
Grand Junction Company	203,000
Lambeth Company	288,000
Southwark and Vauxhall Company ...	323,000
Total	£1,214,000

Two further points should also be noted—(1) that whereas a part of the profits of the water companies was required to be paid to the Chamberlain's fund, the Board will in future be free from any such liability; (2) that the water companies' stock held by the Chamberlain of the City of London will be cancelled, so that practically that fund will act as an abatement of the compensation payable by the Board to the water companies. This fund will, when all the payments due up to the appointed day have been made, represent approximately a sum of about £200,000 in water stock. The "sinking fund" clause was first introduced into the Companies' Acts in 1886, at the instance of the Metropolitan Board of Works, and the clause has been inserted in various Acts since that date, largely on the representations of the London County Council.

The total of the awards in cash would amount to a sum of £30,662,323. This represents, on the respective bases on which the stock has been issued, £33,564 281 in 3 per cent. Water Stock. The figure of £33,564 281, however, does not represent the total amount of Water Stock issued in respect of the transfer of the undertakings, expenditure having to be also taken into account in respect of the costs of the Board and the companies in the arbitration, stamp duty on vesting, expenses of the Court of Arbitration, expenses of issue of Water Stock, costs of winding-up not included in the awards, costs of the Bill for the Metropolis Water Act, 1902, and directors' compensation. Some of these items have not yet been ascertained, but they will probably not exceed in the aggregate the sum of £850,000. If this sum is converted into Water Stock at the average price at which the recent issue was made to the public, it will represent £917,266 of Water Stock.

Water Stock.

The total amount of water stock issued in respect of the acquisition of the undertakings will thus be as follows:—

Compensation awarded to the companies ...	£33,564.281
Other items above referred to	917,266
	£34,481,547
Deduct Chamberlain's Sinking Fund ...	200,000
	£34.281,547

On this amount of stock (£34,281,547) the annual charge for interest will amount to £1,028,446. In addition to this charge, however, allowance must be made for the annual cost of composition for stamp duty on the stock, and for the cost of management of the stock. These two items represent a sum of about £29,000 a year.

There is included in the capital cost of the acquisition of the undertakings a sum in respect of directors' compensation, but against this it must be borne in mind that the fees formerly paid to the directors will no longer form an item of expenditure on management. In the year 1903 4 a sum of £32,538 was paid to the directors.

It will be seen from the table that the profit distributed by the companies as dividend for the year 1903-4 amounted to £1,079,078. This figure, after making allowance for payments to the Chamberlain's Sinking Fund and to the directors, will compare with the annual charge to be met by the Board in respect of water stock issued in connection with the transfer.

The following may, therefore, be taken as representing the approximate annual saving

Company.	Amount of Claim.‡	Amount of Award. in cash.	Loan capital issued at the appointed day. — Debenture Stocks. Rate of interest	Debenture Stocks. Redeemable.	Debenture Stocks. Irredeemable.	Mortgages. Rate of interest	Mortgages. Amount	Total.	Income for year 1903-4.	Interest paid on loan capital in 1903-4.	Dividends paid on share capital in 1903-4.	Payments to Chamberlain's Sinking Fund in 1903-4.	Directors' fees, 1903-4.
	£	£	%	£	£	%	£	£	£	£	£	£	£
East London	7,204,144	3,900,000	4½	(Free of income tax)	654,740			2,251,166	404,876	75,465	141,221	5,543	3,347
			3	1,596,426									
New River	13,260,144	5,967,123*	4		1,500,000			2,758,000	614,742	86,075	236,308	9,430	11,091
			3	1,258,000									
Grand Junction...	4,830,000	3,349,500	4		325,000			500,250	249,296	12,928	107,760	—	2,615
			3	75,250									
			3½	100,000									
West Middlesex..	4,200,240	3,524,000	4½		200,000			772,000	298,361	25,830	120,755	10,270	3,776
			3	572,000									
Lambeth	5,511,342	4,301,000†	4		350,000			1,045,753	325,366	31,212	147,351	9,404	3,451
			3	695,753									
Southwark and Vauxhall	5,674,140	3,603,000	4		1,019,585			2,487,982	294,872	65,545	93,158	2,721	3,162
			3	1,468,397									
Chelsea	4,750,000	3,305,700	4½		175,785			249,217	179,260	9,988	105,440	2,134	2,096
			2¾	49,950									
			3	23,482									
Kent	3,715,614	2,712,000	4½		100,000	3½	42,000	333,880	220,316	10,747	127,087	1,150	3,000
			5		40,000								
			3	151,880									
Staines Reservoirs Joint Committee	—	—	3	1,226,700				1,226,700	—	36,105	—	—	—
5 per cent. on claims other than New River Company‡	49,145,624 1,794,274												
Total	50,939,198	30,662,323		7,217,838	4,365,110		42,000	11,624,948	2,587,089	353,895	1,079,078	40,652	32,538

‡ NOTE.—Except in the case of the New River Company, each of the Companies claimed in addition a sum equal to 5 per cent. of its claim, or the amount of the Award, for possible loss of interest pending re-investment and for the costs of re-investment. In each of such cases, the Award included a certain amount in respect of this claim.

* NOTE.—The Award in the case of the New River Company amounts to £6,534,030 Water Stock, but the figure of £5,967,123 is the cash equivalent, taking as the basis of calculation the price at which the agreement to take stock in lieu of cash was arrived at with the other Companies.

† NOTE.—Under the Award the Lambeth Company had to pay the Board the sum of £42,678, in respect of the repair of a culvert.

to the ratepayers consequent on the acquisition of the water undertaking:—

Profits of the water companies in the years 1903-4		£1,079,078
Add payments to Chamberlain's Sinking Fund in the same year		40,652
Add directors' fees		32,538
		£1,152,268
Annual charges to be met by the Board—		
Interest on £34,281,547 of water stock	£1,028,446	
Annual cost of composition for stamp duty on and management of the stock ..	29,000	
		1,057,446
Approximate annual saving		£94,822

It must further be borne in mind that the awards of the Court of Arbitration have been based on anticipations of future additional profits, and that if those expectations are realised the profit which will accrue to the ratepayers will proportionately increase. Substantial economies resulting from amalgamation may also be anticipated.

No allowance, however, has been made for payments to sinking or redemption funds for the extinction of the Water Stock, as the Act provides that during the first 20 years of the period of 100 years within which Water Stock issued in consideration for the undertakings of the companies, or in substitution, or in consideration for any debenture stock or mortgage debts must be discharged, the Board shall not be required to make any payments towards the discharge of such stocks or debts other than the payment of the amount (if any) by which the receipts on revenue account exceed the expenditure in any one year.

A £3,000,000 Premium.

Mr. W. H. Dickinson, L.C.C., who was foremost in the London Progressive movement for the transfer of the companies' undertakings to the County Council, says that the London ratepayers are having to pay three millions sterling more than they ought.

"What do we find London is being made to pay for the companies' undertakings," said Mr. Dickinson to a Press representative. "If we leave out the New River Company, we find we are paying the seven other companies £24,000,000 for something which was worth in the open stock market four years ago £21,000,000. The shareholders have thus got £3,000,000 more than the then accepted value.

"If we go into details the case is still more striking. On an average each holder of £100 worth of shares has got, in addition to the market value, a present of £15 from the London ratepayers. But this magnificent bonus does not fall evenly upon all shareholders. Some of the good companies, like the Kent, for instance, which have been doing their work well, have received a bonus considerably below the average. On the other hand, the bad companies, like the Southwark and Vauxhall, receive a bonus of £30 on every £100.

"That may be very good business for the companies, but it is bad business for London. It means that the London water supply would in all probability have been conducted at a loss had it not been for the fortunate decision of the Arbitration Court in regard to the New River Company. That decision, which was largely brought about by the London County Council, reduced the claims of that company by £3,000,000. Had the County Council's policy been followed in regard to the other companies, the shareholders of those companies would not have been allowed to take from the rates an average of £15 for every £100 of stock purchased."

It is obvious, however, that, admitting the accuracy of Mr. Dickinson's figures, the increased sum which London has to pay is not due to any laxity on the part of the Water Board, but rather to the delay that occurred in passing the Purchase Act, and the company safeguards that were introduced into the Bill by the Government. The general concensus of opinion seems to be that under all the circumstances the Board has done its work remarkably well. Whether the authority could not have been better constituted, and whether the purchase could not have been carried out more satisfactorily under other circumstances, are questions of politics and not of administration.

OFFICIAL & PERSONAL.

WIMBLEDON CLERKSHIP.

Mr. A. Steele Sheldon Appointed.

WIMBLEDON, as our readers know, will be a borough next year. The first town clerk will probably be Mr. A. Steele Sheldon, town clerk of Burnley, who has just been appointed clerk and solicitor to the District Council. The present clerk to the Council (Mr. R. H. Smethurst Butterworth) is resigning to follow the legal profession.

Mr. Sheldon, who is 45 years of age, was educated at Congleton Grammar School (1866-9), and at Harrogate College, Yorkshire (1870-5). Immediately upon leaving school he was articled to Mr. Robert Bygott, solicitor, Sandbach (Cheshire), and afterwards to Mr. J. W. Hickin, of Sergeant's Inn, London. He passed the final examination for solicitors in April, 1881, and had the honour of being placed third in order of merit, and was awarded the New Inn Society's prize. Admitted as a solicitor in July, 1881, during the ensuing 18 years he was in general practice (including advocacy) in his native town of Congleton and in the adjacent borough of Macclesfield. Up to this time (1899) he had interested himself in, and had practical acquaintance with, many matters pertaining to local government. In the office in which he was articled the work of the appointments of clerk to a Poor Law union, to two local boards of health, and to a burial board, was transacted. He was for

Mr. A. STEELE SHELDON
(Wimbledon U.D.C.'s New Clerk.)

some years an active member of the Town Council of Congleton, and, in July, 1894, was unanimously elected town clerk of that borough. In April, 1896, he was also unanimously elected to the position of clerk to the Urban District Council of Biddulph, Staffordshire. In 1899 he determined to devote himself wholly to public work, and, in December of that year, applied for and was appointed to, the position of town clerk of Burnley, a county borough of nearly 100,000 inhabitants, and having the well-merited reputation of being a progressive and excellently-governed town. That appointment he still holds. During his five years' residence in Burnley he has had a wide and valuable experience of local government.

The clerkship of the Burnley Joint Hospital Board—a combination of four local authorities—is also held by Mr. Sheldon. He has had a long and varied experience of educational work. Prior to coming to Burnley he was a member of a technical instruction committee for six years, honorary secretary thereof for three years, a voluntary school manager, and clerk to the Biddulph School Attendance Committee. Here he acts as legal adviser to the Education Committee, attends its meetings, and is constantly being consulted upon the many questions arising in the administration of the Education Acts, and relating to elementary, secondary, and technical instruction.

BURNLEY CLERKSHIP VACANT.

MR. SHELDON'S appointment to Wimbledon has created a vacancy in the town clerkship of Burnley. At a special meeting of the Burnley Town Council last week, Mr. Sheldon's resignation was accepted, the Mayor expressing the deep regret of the Council at the loss.

Mr. Sheldon was appointed town clerk five years ago, at a salary of £600, since increased to £900.

HULL ACCOUNTANT'S SAD END.

MR. RICHARD BROWN, the Hull city accountant, committed suicide on Sunday. For some time he had suffered severely from nervous depression, and a few months ago his friends had to insist upon his taking a rest. Accordingly, he spent a holiday in Cornwall, and the change seemed to have improved him, for he attended regularly at the office up to Saturday afternoon.

On Sunday morning, after taking his breakfast about ten o'clock, Mrs. Brown suggested that he should sit with one of his children, who was ill. About a quarter of an hour later she found the child alone, and on seeking her husband discovered him in his bedroom hanging by a cord from the foot of the bed. The distracted wife raised an alarm, and a milkman, named Preston, entered the house, but before medical aid arrived Mr. Brown was dead.

The deceased, who was 39 years of age, leaves a widow—his second wife—and six children. He had been many years in the service of the Hull Corporation, and was appointed city accountant, at a salary of £350, when Mr. T. Milner was promoted to the treasurership. In that position he had the entire confidence of the financial department, as a man of undoubted ability. No one can offer any explanation which would account for his end beyond a fit of overpowering depression.

ABERDEEN CITY CHAMBERLAIN.

THE death occurred last week of Mr. P. M. Cran, City Chamberlain of Aberdeen. Mr. Cran, who was 63 years of age, was a native of Banffshire. He was a son of the late Mr. James Cran, deputy chief-constable of Aberdeenshire, and was educated at the old Grammar School, Aberdeen, and at King's College.

In 1876 Mr. Cran was appointed city chamberlain, and during the 28 years he occupied that position he rendered excellent service to the Corporation. On the celebration of his official semi-jubilee three years ago tangible acknowledgment was made by the Town Council and other representative citizens of the value of his work and of the esteem in which he was held.

CORPORATION AND STREET BETTING.

AT the instance of Mr. W. Norfolk, the Yarmouth Corporation has unanimously passed a resolution recommending the Watch Committee to make more stringent efforts to prevent street betting.

Mr. Norfolk said he believed the whole blame for the prevalence of street betting in the borough rested with the Council, which was not doing its duty, and he appealed to it to realise its responsibility in the matter. He had watched the careers of numbers of young men, and knew their downfall was due to street betting. Seven out of every 10 bankruptcy cases could be traced to betting, directly or indirectly. Hundreds of working men—and he was ashamed to say women, too—gave money to betting men's touts, and did it openly. He hoped the Council would use every effort to stamp it out.

PORT OF LONDON.

THE London Chamber of Commerce on Wednesday discussed the Port of London question. Mr. Albert Spicer, who presided, said the meeting had been convened to afford facilities for a discussion of the question from all points of view, in view of the important Bills of which the London County Council, the Thames Conservancy, and others had given notice.

Although no resolution was proposed, it appeared that the general feeling of the meeting was in favour of a conference being held in the near future between the various interests concerned.

NOTES AND ANSWERS.

A Small Set-Off Against the Many Advantages of Incorporation—Disfranchisement of Lodgers and Others. How to Dispose of a "Find." The Qualifications of an Alderman for Election. When is a Town Councillor "Pecuniarily Interested?" Qualification of Surveyor for Office.

*** *Queries intended for this column should be addressed to the "Legal Correspondent,"* MUNICIPAL JOURNAL, *12, Salisbury Square, E.C. They should be written on one side of the paper only, and be signed by a nom de plume or initials, the real name and address of the correspondent being written on the back of the paper.*

573.—COUNCILLOR AND GUARDIAN—Want of Qualification for Office—Effect.—A gentleman who is a guardiau of the poor and a member of the local borough council has been objected to upon the Parliamentary list, and the objection was sustained. He had no other qualification. Under these circumstances, can the person in question retain his position, either as guardian or councillor, to the period covered by his election, and, if not, when does he cease? Should he continue to act aud vote in either capacity, does any penalty accrue, and under what statutes?—"VERA."

It is provided by 10 and 11 Vict., c. 109, Sec. 25, that "in no proceeding shall it be lawful to question the qualification or validity of the election of any person as a guardian after the end of twelve months next following the election, or the time when the alleged disqalification or want of qualification of the person against whom such proceeding shall be directed, shall have arisen." Before the lapse of that period it would seem that the election of a guardian may be questioned by *quo warranto* on the ground of his want of qualification. It is not clear that the guardian referred to would incur any penalty by sitting and voting as such under the circumstances indicated. If he were *dis*qualified (as, for example, through being adjudged a bankrupt or being interested in a contract with the Board), it would be otherwise. In such case the provisions of Sec. 46 (8) of the Local Government Act, 1894, would apply, and render the disqualified guardian liable to a penalty of £20. But it is doubtful whether this enactment would apply to the want of qualification as distinct from a positive disqualification.

574.—POLICE FORCE—Reserve Class.—I shall be much obliged if you will kindly inform me in an early issue of your valuable journal what Acts of Parliament euable a police authority to establish a reserve class from members of the police force who have served their full time: and also, as I uuderstand reserve meu are really equivaleut to special coustables, whether it is necessary for meu acting in the reserve class to retake the oath before discharging all the duties of a police constable?—"MERLIN."

This question is somewhat outside the scope of our column, and we regret we cannot deal with it at length. We are not aware of any special Acts providing for the formation of a police reserve force. The retirement and pensioning of constables is regulated by the Police Act, 1890. Under that Act constables become entitled, after 25 years' approved service, to a pension for life, and, in case of incapacity, pensions are obtained on a medical certificate after 15 years' approved service. Retired constables would, in effect, form a reserve police force, and it would apparently be necessary for them to retake the oath when at any time they might be recalled and, voluntarily, return, to duty. Our correspondent may possibly obtain further information from the Home Office.

575.—INCORPORATION OF AN URBAN DISTRICT—Effect on the List of Voters.—Is it uot a fact that upon an urban district having obtained a charter of incorporation, lodgers, service men, and certain other classes who have been voters become disfrauchised? And is not opposition to incorporation, in your opinion, on the part of a lodger (like myself) in an urban district so threatened by an attempt of others, more privileged, to obtain such charter a perfectly reasouable opposition?—"UT INFRA."

Under Sec. 51 (2) of the Municipal Corporations Act, 1882, only persons enrolled in the burgess roll are entitled to vote at an election of councillors for a borough. The qualifications for a burgess are set out in Sec. 9 of the Act, and include occupation of a house, warehouse, shop, or other building, twelve months' residence in the borough, or within seven miles thereof, and the being rated in respect of the qualifying property to all poor rates made during such period of twelve months for the parish within which the property is situate. The prescribed qualifications for burgess-ship will thus exclude lodgers, those exercising the service franchise, and owners of property, where no other qualification exists in those cases. As regards the concluding question asked by our correspondent we can only say that in our opiniou the disfranchisement of a small class is hardly a sufficient reason to outweigh the advantages to be derived from incorporation, and unless it is supported by some substantial objections, we should think it an unreasonable ground of opposition to such a scheme.

576.—LOST PROPERTY IN LONDON—Must the Finder Deliver it to the Authorities?—Does there exist in the metropolis any Police Act, or other Act or regulation, which would compel the finder of a lost article in the public street to deliver up the article to the police authorities? I may mention that the general Police Act of 1892 (55 and 56 Vict., c. 55) applies only to Scotland.—"W. M."

We are not aware of any statute or police regulation in force in the metropolis which would require the finder of lost property to deliver it up to the police authorities. Our correspondent will be familiar with the provision contained in the London Hackney Carriage Act, 1853, as to property left in hackney carriages, viz., that the driver of every hackney carriage within the metropolis wherein any property is left by any person shall, within 24 hours, carry such property, if not sooner claimed by the owner, in the state in which he finds it, to the nearest police-station. Apart from this enactment, the common law would seem to apply to the finders of lost property. Under that, the finder is entitled to it against all persons except the real owner ("Armory v. Delamirié"); and this rule obtains even where such property is found on the floor of a shop by a person other than the shopkeeper ("Bridges v. Hawkesworth," 18 L.T. (54). It is not necessary to refer to the exceptions to this rule which obtain in the case (not only of hackney carriages, but also) of railways, inns, canals, &c.

577.—ELECTION OF ALDERMEN—Qualification of Aldermen.—(1) Can you say what is the proper way to elect aldermen in a meeting of the council? The method followed in our council was as follows:—A meeting in committee was first held to select names to submit to the council on November 9th. The committee decided to uominate six persons. However, a seventh name was submitted. The six gentlemeu who received the highest number of votes were declared to be the names that should be put before the council. On the 9th of November a paper was handed to each member of the council with the names of the six gentlemen printed on it. At the foot of the paper a space was left for each member to sign. No mark iu any way was made opposite to any name. The chairman said that each person who signed the paper was voting for all the uames on the paper. They were collected by the town clerk, who handed them to the Lord Mayor, who declared that each paper that was signed was oue vote each for the names printed thereou. Three papers sent up uusigned were not counted. Is this the proper way?

(2) What is tho qualification that entitles a person to be elected an aldermau?

"COUNCILLOR."

(1) The regulations for the election of alderman laid down by the Municipal Corporations Act, 1882, and explained by legal decisions in some cases, are few and simple, and should be rigidly observed. They are, briefly, as follows:—The election shall ordinarily be held on the 9th of November at the quarterly meeting of the council. It shall be held immediately after the election of the mayor, or, if there is a sheriff, the appointment of the sheriff. Outgoing aldermen may not vote, except when an outgoing alderman acts as chairman, he may exercise the chairman's prerogative of giving a casting vote. Every councillor and alderman entitled to vote may vote for any number of persons not exceeding the number of vacancies, by signing and personally delivering at the meeting to the chairman a voting paper containing the surnames and other names and places of abode and description of the persons for whom he votes. It has been held that the requirements of the Act have been complied with where the voting papers, instead of being handed by the voters personally to the chairman, were collected by the town clerk, and passed on by him to the chairman ("Baxter v. Spencer" (1895), 59 J.P. 376). Apart from these statutory requirements, the election of aldermen may be regulated by the council. Dealing particularly with the procedure in the case submitted, we do not think the above regulations have been violated. It was open to any councillor to strike out any name upon the list prepared by the committee, or even to submit for election persons other than those nominated. The rejection of unsigned papers was of course valid. At the same time, it seems to us it would have been distinctly preferable to require each councillor voting to indicate by a mark against each name on the list whether or not he desired to vote for such person.

(2) Sec. 14 (1) of the Municipal Corporations Act, 1882, requires that "the aldermen shall be fit persons elected by the council." Sub-section (3) of the Sec. 14 provides that "a person shall not be qualified to be elected or to be an alderman unless he is a councillor or qualified to be a councillor." The qualifications for the office of councillor are laid down by Sec. 11 of the same Act, and include the following:—

(1) He must be enrolled, and entitled to be enrolled, as a burgess, and for this he is required to be in occupation of a building of any value, or of land of the annual value of £10, in the borough; he must reside in or within seven miles of the borough; and he must be rated and pay rates.

(2) Or, being entiled to be so enrolled, in all respects, except that of residence, he must reside within from seven to fifteen miles of the borough, and be entered on the separate non-resident list directed to be made by the Act.

(3) And, in either of the above cases, he must be possessed of real or personal property amounting in value to £1,000, in the case of a borough of four or more wards, and of £500 in the case of any other borough, or, be rated to the poor rate in the borough on the annual value of £30, in the former case, and of £15 in the latter case.

(4) Lastly, as an alternative to these qualifications, it is provided that every person shall be qualified to be elected and to be a councillor who is at the time of election qualified to elect to the office of councillor.

578.—TOWN COUNCILLOR—Pecuniary Interest in Matter Before the Council—May not Vote Thereon.—At a meeting of a certain towu council, the following paragraph was on the agenda of the Lighting Committee:—

"Your committee, having considered the question of lighting these streets with electric lights, recommend that 15 lamps be fixed in positions to be selected by the borough surveyor and electrical engineer."

The paragraph was about to be criticised by an individual who is a holder of shares in the local gas undertaking, which is in competition with the corporation system of electric lightiug. The town clerk advised the mayor, who ruled accordingly, that, by virtue of that iuterest as a shareholder in the gas compauy, the critic had therefore neither the right to criticise nor power to vote ou the question before the council. You will note that no reference whatever is made, in the proposal in question, to the use of gas; and so long as the member who was debarred from speaking confined his remarks to the direct question of electric supply, should not he have been allowed to speak and to vote?—"IVES HARLEY."

Sec. 22 (3) of the Municipal Corporations Act, 1882, provides that, "a member of the council shall not vote or take part in the discussion of any matter before the council, or a committee, in which he has directly or *indirectly*, by himself or by his partner, any pecuniary interest." It seems to us that this sub-section will exclude the member in question from speaking or voting on the question raised, for, though gas is not mentioned, there can be no doubt that such member is *indirectly* interested in a pecuniary sense in the matter under discussion. The advice given by the town clerk seems, therefore, to be good in law.

579. — MINUTES OF TOWN COUNCIL — May Reading be Dispensed With and the Printed Minutes be Taken as Read?—Will you please inform me if it is necessary for the minutes of a council meetiug to be read by the town clerk before being confirmed, or if it would

be possible to have the minutes printed and circulated so as to take them as read and confirm them at the commencement of the following council meeting?—"CIVIS."

Rule 12 of Schedule 2 to the Municipal Corporations Act, 1882, provides that the minutes of the proceedings of every meeting of the town council shall be drawn up and fairly entered in a book kept for the purpose, and shall be signed in manner authorised by the Act. Sec. 22 (5) dealing with the latter point, provides for the signing of the minutes of the proceedings at the same or at the next ensuing meeting, by the mayor, or by a member of the council acting as chairman of the meeting. Subject to these requirements, the council may, from time to time, make standing orders for the regulation of its proceedings and business, and vary or revoke the same. (Rule 13 of Schedule 2). It is, perhaps, a straining of the regulation as to entering the minutes in a book to hold that the printing and binding together of the minutes will satisfy such regulation. But this plan is constantly adopted in practice, and it would be unwise to raise any objection. There is no doubt that the council may make a standing order under the powers conferred upon it by Rule 13 above cited, provided that printed minutes of a meeting shall be circulated amongst the councillors, and taken as read, and signed by the chairman or mayor at the following meeting of the council. Each member has an opportunity of raising any objection to the minutes before they are read, in the same way as he would raise an objection after the reading, if such minutes were read out. This method is, we believe, adopted frequently where the minutes are lengthy and the business before the council heavy.

580.—**SURVEYORSHIPS**—Would you be so good as to inform me, through the medium of your valuable paper, what routine I must go through in order to get a position in the Surveyor's Department—either in the London County Council, one of the London borough councils, or in a provincial council. Will you enlighten me on the following points also:—

(1) What examinations should I be required to pass?

(2) Is there any age limit?

(3) The rate of remuneration?

"READER."

In the country at large—excluding London—surveyors to urban sanitary authorities (including under this description both borough councils and urban district councils) are appointed under Sec. 189 of the Public Health Act, 1875. No particular qualification for the office is prescribed by statute, and the matter is one for the authority appointing in each case to decide. We understand, however, that it is a frequent custom to select a professional surveyor or engineer for the office. The post of surveyor is often combined with that of inspector of nuisances. For the latter office the Royal Sanitary Institute (address Parkes Museum, Margaret Street, W.) holds examinations from time to time, and grants certificates of qualification. Amongst other qualifications for admission to the examination is that of having served a local authority as surveyor or assistant surveyor. Such certificate does not, of course, imply any responsibility on the part of the Institute for securing appointments for candidates. Surveyors of metropolitan borough councils are appointed under Sec. 62 of the Metropolis Management Act, 1855. Here again no specific qualification is prescribed by statute, and the above remarks will apply to these officers, as also to any who may be appointed by the London County Council under Sec. 3 (ix.) of the Local Government Act, 1888. Application should in each case be made for the necessary particulars of any office, and the qualifications therefor, to the council under which a vacancy may occur.

A QUIETER LONDON.

SIR PHILIP BURNE-JONES, Bart., presided on Monday at a conference respecting the abatement of unnecessary street noises, held at 1, Finsbury Circus.

There was a representative attendance of gentlemen interested in the question, and the following resolution was adopted:—

> That, in view of the increasing noises in the streets of London occasioned by organ-grinders, coal hawkers, milk vendors, news-boys, &c., by traction engines by night, noises for the most part unnecessary, and which are disturbing and distressing to those engaged in professional or commercial pursuits, and injurious to invalids, in the opinion of this conference it is desirable that fuller powers should be granted to the police for dealing with the nuisance, and that active steps to bring the matter before the various authorities should be taken by the Betterment of London Association.

HOW TO ADVERTISE.

American Cities, which are Far Behind the English Municipalities in Civic Enterprise generally, are Imbued with the National Appreciation of the Value of Advertising. Across the Atlantic the Art of Municipal Advertising has Reached its Highest Development. How it is Done, and the Methods that are Employed.

AMERICA is renowned for its advertising, and the spirit of the times is taking hold of its cities. The municipalities of this country are sometimes rather backward in making known their attractions and advantages, but, on the other side of the water, no scruples of modesty restrain the publication of information that is calculated to arrest the attention of the manufacturer or the settler. Chambers of Commerce, municipal authorities, and others interested in seeing certain cities grow, now realise that not natural advantages alone make growth, but also systematic activity in publishing those natural advantages in the proper quarters. Manufacturers come more quickly to an ideal industrial centre when they know that cheap fuel, free sites, low taxes, and freedom from labour annoyances are offered. Farmers can be brought into the wheat lands of Canada's North-west Territory ten times as fast through active newspaper advertising of advantages and terms as they can by being left to learn about these advantages themselves. Some States and cities have beautiful scenery to attract tourists, while the climate of others is beneficial to invalids. Few localities, indeed, but have something to offer outsiders that will increase their prosperity and importance.

A Successful Instance.

As an instance of the possibility of getting good results from a modest outlay, the exhibit of Nebraska at the World's Fair at St. Louis affords a good example. The appropriation was only £7,000, which made a State building possible, but by careful management and the intelligent work of the commission the State of Nebraska has been given a representation at the Fair, which ranks first in point of advertising value. The main exhibit is in the agricultural building. A complete little theatre has been built in the centre of the exhibit, equipped with a stage. Exhibitions, lasting 15 minutes, are given 13 times a day, so that fully 3,000 people witness the exhibition daily. The Nebraska exhibits are more frequently mentioned in the press than those of any other State.

Louisville's Method.

In the street cars of St. Louis during the Fair have appeared cars calling attention to the advantages of Louisville, Kentucky, as a manufacturing centre. The public is invited to visit the Kentucky building, the Kentucky exhibits, and to correspond with the Commercial Club of Louisville for any further information that may be desired. The Commercial Club pays for this sensible form of municipal advertising.

Not Always Successful.

Municipal advertising is not always successful, and is frequently the result of impulse, we are told by the New York *Municipal Journal*. A city wakes up to the fact that a neighbouring municipality gets a good many conventions or new factories. In the spirit of emulation a fund is quickly raised and a committee appointed to compete. Started off with a spurt, the campaign often ends with a depleted treasury. The entire fund may have been invested in an expensive souvenir book that had no real advertising value. Or in the rivalry of bidding for a large convention the whole fund may have been pledged for entertainment purposes. If the advertising committee used the fund to seek manufacturers, it may have found the wrong kind—the manufacturer who secured a bonus for a wornout plant or who sold stock in a concern that was ridiculously over-capitalised. The moment a municipal advertising fund is raised it is made the object for the attack of enemies.

The Kind of Medium to Be Used.

Municipal advertising is confined to no single set of mediums. In some cases the best results can only be secured through newspaper publicity. In others, the magazines may be the most profitable medium. In still others printed literature or personal letters reach the class to be interested, while many auxiliaries are employed, such as travelling expenses of products, stereopticon lectures, &c. The first essential to good advertising is to have something to offer. The advertising should be constant, but sane.

Principles to be Followed.

The underlying principles to be followed in municipal advertising, proceeds our interesting contemporary, are not materially different from other lines of work. The first problem should be, what are the advantages offered? The second, to what class will these advantages appeal? A city or district has a character. If it is worthy of advertising effort it must have some especial advantage. Among the more common advantages are climate, improvements, shipping facilities, and the present character of its inhabitants. These and many other conditions are fit subjects for advertising. The ordinary newspaper "write-up" or the ordinary illustrated booklet telling of the great smartness of some of the town's "leading citizens" is quite inefficient. The average newspaper writer cannot grasp the situation. The element of selfishness in human nature must be taken into account in municipal advertising. Few people select a factory site from the statements chronicled by newsvendors. The advertising must be explicit, direct. It must be devised with a full understanding of conditions. Boards of Trade and similar organisations are apt to delegate this work to some one able to dash off a lot of gushy matter. The prospective investor pays little attention to generalities, but if he has the facts presented in a logical, sensible way, he will read them and be interested.

The municipality must have something other than the mere desire to attract outside capital, residents or visitors. If it has an excuse for calling attention to itself nationally, some intrinsic value or advantage, then it can make splendid use of publicity. The work should be delegated to an experienced man, not a theorist, one who has observed the development of many municipalities. Take care of both the human side, the social side, and the practical side of your prospective customer and you will get him to locate with you. He will build his shops in your midst and thereby benefit the entire community. Get him into the notion that he is going to have the hearty co-operation and support of good citizens and that the town will take an interest in his affairs and help in every legitimate way to promote his welfare. He wants to make money, live in a good community surrounded by cheerful, optimistic people; and it is the business of the Board of Trade to set the facts before him in the best possible light.

RELICS OF OLD LONDON.

ADDRESSING the London Topographical Society on Tuesday, Mr. F. G. Hilton Price said there was little of London left—of London before the great fire. Not only had the superstructures gone, but the substructures had also disappeared; and it behoved them, therefore, to watch very carefully for anything of value that was to be seen in the foundations of the present-day buildings. There was little doubt, he continued, that old London was really a very handsome city; but after the great fire in 1666 new buildings were built on the foundations of the old houses, and a new city sprang up and the sites of the old houses had to be scraped up to make room for the new buildings.

A NOTABLE BOOK.*

How Succeeding Generations Have Dealt with the "Won't Works" and the "Cant't Works." The Gentle Practices of Ear Splitting and Whipping. Limits of Legislative Action. Some Hardy Annuals.

IT is becoming quite the thing just now to discuss the problem of the unemployed.

With great naïveté the question is being asked, as though it were quite new, "What causes lack of employment: why does not Parliament do something?" What Parliament has been doing during the last three hundred years—since 1601, when the first Poor Law was enacted—is the theme of these three interesting volumes.

The brilliant man who would crack the hard nuts of destitution and unemployment by a single stroke of genius should read these volumes. The obscure statemen of the bar-room who would "make the beggars work" will find that it took Parliament a hundred years before it was convinced that that was *not* the way. First, simple imprisonment for "feitors and vagabonds" was tried, and after this had been tried and failed, other punishments were resorted to, such as whipping the half-naked offender, whilst tied to the back of a cart, round the parish or wapentake. Even so late as 1603-4, for punishment of rogues, vagabonds, and sturdy beggars:—

> Shall be branded in the left shoulder with a hot burning-iron of the breadth of a shilling, with a great Roman R, upon the flesh, that the letter R may be seen and remain for a perpetual mark upon such rogue during his or her life.

It appears at length to have been seen that severe punishment loses its terrors in the presence of actual want—that a man will beg, or steal, or resort to violence rather than starve, and that the first step towards putting down begging and vagabondage and the crimes then arising is to provide against the occurrence of such an extremity of want as will leave no alternative between starvation and a breach of the law.

Then we hear to-day the voice of the man who would make work, not in the way of expediting necessary work, such as Mr. Long's Central Committee will do, but to make work for the sake of work. This is exactly what was tried under a statute of Elizabeth. With the object that the unemployed "may not have any excuse in saying they cannot get any service or work," and that "other poor and needy persons, being willing to work, may be set on work," it is enacted:—

> That in every city and town corporate, and likewise in every market town or other place which the justices of peace may in general sessions appoint and order, a competent stock of wool, hemp, flax, iron, or other stuff, shall be provided by taxation, of all the inhabitants within the several limits. The said stock is to be committed to the custody of such persons as the mayor, bailiff, or other head officers of the cities and corporate towns may appoint, and in other places to such persons as shall be appointed by the justices.

"Houses of correction" were provided for those who would not take advantage of this work, where they were "to be straightly kept as well in diet as in work, and also punished from time to time as the persons having the oversight and government of the said house of correction shall appoint."

In every age there have been the "won't works"—to use General Booth's nomenclature—as well as the "can't works." Another Act of Elizabeth directs that any of the poor who were not so diseased or impotent but that they could do some manner of work, and who refused, "are to be whipped and stocked for their first refusal, and for the second refusal to be punished as in case of vagabonds in the first degree." To suffer as vagabonds might mean to lose their ears or even their lives.

It is interesting to learn how the children were treated in these "dark days." An Act of Edward VI. provides that a young beggar, or child of a beggar, whether it be male or female, between the ages of five and fourteen:

> "Idly wandering about as a vagabond," may be taken by any manner of person from any such beggar, "being the mother, nurser, or keeper thereof, whether they be willing or not"; and upon the person's promising before a justice of the peace to bring the child up in some honest labour or occupation, the justice may adjudge the said child to be servant or apprentice to the person so promising, until it reach the age of 20 if a woman-child, and until 24 if a man-child; and if any child so adjudged shall run away from such master or mistress, the child may be taken again and punished in chains or otherwise, and be used in all points as a slave for the time above specified; and the master or mistress is then empowered "to let, set forth, sell, bequeath, or give the service and labour of such slave-child to any person or persons whomsoever he will."

The Acts of Elizabeth, on which our English Poor Law was founded, were not the result of a sudden thought or a single effort, but were gradually framed upon the sure ground of experience. It is curious to trace the successive steps by which its chief enactment, that of a compulsory assessment for the relief of the poor, came at length to be established.

First, the poor were restricted from begging, except within certain specified limits. Next, the several towns, parishes, and hamlets were required to support their poor by charitable alms, so that none of necessity might be compelled "to go openly in begging," and collections were made for them on Sundays, and the parson was "to stir up the people to be bountiful in giving." Then houses and materials for setting the poor on work were to be provided by the charitable devotion of good people, and the minister was every Sunday specially to exhort the parishioners to contribute liberally. Next, the collectors of the poor, on a certain Sunday after divine service, were to set down in writing what each householder was willing to give weekly for the ensuing year, and if he should prove obstinate and refuse to give, the minister was to gently exhort him. If this failed, the justices were to try first persuasion, and then to assess as they thought reasonable. This prepared the way for the more general assessment authorised by 14 and 39 Elizabeth, which again led to the complete and universal assessment of property.

To understand the whole of the vicissitudes in the treatment of the poor, the trials and failures of the law, the futility of legislation where economic law is concerned, up to the time of the great Reform Act of 1834, these first two vols. by Sir S. Nicholls must be studied. The great reformer, whose name stands so closely associated with the foundation of the Local Government Board, deals with the subject as only a master could. There is one conspicuous fault in the style, however, which arises from the writer's inability to restrain himself from wandering at times into the by-paths, interesting certainly, of general English history. The coronation of the Prince and Princess of Orange, for instance, though forming a thrilling chapter, must be considered a little extraneous from a study of the English Poor Law.

The note that runs through the books is one which we are a little in danger of forgetting to-day—that anything which tends to turn man from the persevering exercise of his own natural powers, or to divert him from a reliance upon his own honest efforts for obtaining the means of living, cannot fail to prove injurious both to the individual and to the community.

Every student of the Poor Law knows to what lengths the evils of pauperism extended before the year 1834, when half the labouring classes were in receipt of parish pay, and in several parishes the rates were as much as 60s. in the £. It is at this point that Mr. T. Mackay takes up the thread dropped by Sir George. The treatment of the subject from this point is somewhat more speculative. It sets forth the economic rather than the legal history of the subject, and supplies a review of principles and events from the standpoint of a later generation.

Its author, too, apparently, is of what has been called the "strict school of administration," and sees in out-relief, except when administered with the greatest rigidity, one of the speediest means of demoralising and degrading those whom it ought to raise.

* "History of the English Poor Law," by Sir George Nicholls and Mr. Thomas Mackay (Messrs. P. S. King and Son, Westminster.) Three vols., 15s.

"WHO'S WHO."*

"WHO'S WHO" for 1905 is, as usual, up to date. To make room for additional information, the tables which formed the first part of "Who's Who" have been deleted, the idea being to make the book more completely a biographical annual. These tables, with many interesting additions, are issued as a separate book, called "Who's Who Year-Book, 1905." This also includes a list of race meeting, tables of leading London specialists, and of great London preachers of all denominations, which appear for the first time. In view of the connection between the two works, both should find a place on the shelf of the office and the business man throughout the country.

ENGLISHWOMAN'S YEAR BOOK†.

THE ladies will welcome the 1905 publication of the "Englishwoman's Year Book and Directory," upon the preparation of which the editress is to be congratulated. As is stated in the preface, "the multiplication of philanthropic societies has kept pace with the opening of positions of usefulness to women, as Poor Law guardians, in professions, and in many other directions"; and many busy women have found that their labours are lightened by the possession of this admirable handy book of reference.

HUMANE SLAUGHTERING.

THE evils of butchery are well-known, but it would almost seem as if the race had not reached a standard high enough for it to see the necessity of sweeping those evils away. Much of the cruelty which disgraces our slaughterhouses is due, no doubt, to the retention of antiquated methods, and springs, let us hope, less from callousness than conservatism. A book that should do something to sweep away ignorance and prejudice is just to hand. "Humane Slaughtering" (Curtis and Beamish, Limited), by H. Heiss, Abattoir Director of Straubing, Bavaria, is really a prize essay, entitled "The Stunning of Cattle by Means of Appliances Acting with Instantaneous Effect," translated into English by Mr. C. Cash, B.A. The book is a lucid exposition of the principles on which methods of slaughtering by means of instantaneous stunning are founded, and the employment of those methods. Amongst the apparatus described and explained are the shooting-bolt, "Eagle Works," "Mors," "Flessa," Behr's "Flash Cattle-killer," Liebe's &c. The author truly remarks that:—

> The animal which is painlessly deprived of life owes gratitude to man in death for the mercy shown to it, though it may not have met with gratitude from man in life for the services it has rendered.

Every councillor ought to feel it his duty to see that bye-laws are framed to regulate private slaughterhouses, not only with regard to sanitary requirements, but with regard to the avoidance of cruelty in slaughtering.

It is interesting to notice that the author, Herr Heiss, was the personal friend of Dr. Oscar Schwarz, the well-known author of the standard work on abattoirs, "Schlacht und Vichhöfe" ("Abattoirs and Cattle Markets.") H Heiss assisted in this work, and when Dr. Schwarz died last year was appointed his literary executor. Herr Heiss's essay is at the present moment being translated into French.

* "Who's Who": Messrs. A. and C. Black, Soho Square, London. 7s. 6d.

† "The Englishwoman's Year Book and Directory": Messrs. A. and C. Black, Soho Square, London. 2s. 6d.

TO TOWN CLERKS,

SURVEYORS,

ENGINEERS,

AND OTHER

MUNICIPAL OFFICIALS.

We are constantly receiving evidence of the value of THE

MUNICIPAL JOURNAL

FOR

OFFICIAL ADVERTISEMENTS

OF

APPOINTMENTS,

TENDERS, &c.

The Sale of the Journal is

INCREASING
Week by Week

Throughout the Country, especially amongst

COUNCILLORS, OFFICIALS,

PUBLIC SERVANTS GENERALLY,

and CONTRACTORS.

Office, 12, SALISBURY SQUARE E.C.

Official Advertisements.

WHITECHAPEL UNION.

TO TEA MERCHANTS.

TENDERS are invited for the SUPPLY of 760 lb. of Indian or Ceylon TEA at 1s. 7d. per lb., and 6,450 lb. of Indian or Ceylon Tea at 1s. 4½d. per lb.

Forms of tender, with terms and conditions of contract, may be obtained from me up to Wednesday, December 28th, 1904.

F. J. TOOTELL,
Clerk to the Guardians.

Union Offices,
Vallance Road,
Whitechapel, N.E.
6th December, 1904.

BOROUGH OF LEWISHAM.

PUBLIC LIBRARIES COMMITTEE.

THE Committee require the services of a SUB-LIBRARIAN at a commencing salary of £100 per annum to take charge of the Branch Library at Brockley. Previous experience in public library work essential. Applicants must not be under 21 years of age.

Applications, in candidates' own handwriting, to be made on printed forms to be obtained from the undersigned, accompanied by copies of not more than three recent testimonials, which are to be sent in, endorsed "Application Sub-Librarian," on or before 4th January, 1905.

The appointment will be made subject to the rules and regulations of the Council from time to time in force, and subject to medical examination.

Canvassing is prohibited.

EDWARD WRIGHT,
Town Clerk.

Lewisham Town Hall,
Catford, S.E.
13th December, 1904.

COUNTY BOROUGH OF SUNDERLAND.

ELECTRICITY DEPARTMENT.

TO MAKERS OF WOODEN COOLING TOWERS.

THE Corporation of Sunderland are prepared to receive TENDERS for the SUPPLY of One WOODEN COOLING TOWER, capable of Cooling the Circulating Water for a Surface Condenser dealing with 30,000lbs. of steam per hour.

The specification and form of tender can be obtained on application to the Borough Electrical Engineer, Mr. John F. C. Snell, M.Inst.C.E., at his Office, Town Hall, Sunderland, on payment of a deposit of £1 1s., which will be returned on receipt of a bona-fide tender.

Sealed tenders, addressed to the "Chairman of the Electricity and Lighting Committee," Town Hall, Sunderland, must be delivered at my Office not later than 12 o'clock at noon on Friday, the 30th day of December instant. Tenders to be endorsed "Tender for Cooling Tower."

The Corporation do not bind themselves to accept the lowest or any tender.

FRAS. M. BOWEY,
Town Clerk.

Town Hall, Sunderland.
13th December, 1904.

INSTITUTE of MUNICIPAL TREASURERS and Accountants' Examinations, June, 1905. Gentlemen coached in class or by correspondence in Law Section. For terms address "Coach," MUNICIPAL JOURNAL Offices, 12, Salisbury Square, Fleet Street, E.C.

SOLICITOR (30), experienced as manager in conveyancing and Common Law, &c., desires Post in municipal office. Expert shorthand writer. Three years in town clerk's office. Excellent references. "Trois," MUNICIPAL JOURNAL, 12, Salisbury Square, Fleet Street, E.C.

EATON & KNAPP,
BOILER SETTERS & FURNACE BUILDERS,
Repairs in Boiler Brickwork & Dust Destructors of all kinds.
ESTIMATES FREE.
23, CLACTON ROAD, WALTHAMSTOW.

THE BEST JUDGES OF CIGARS
Now obtain their supplies at
BENSON'S, 61, St. Paul's Churchyard, London.
Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

SUN FIRE OFFICE
FOUNDED 1710

SUN
FIRE
OFFICE

HEAD OFFICE:
63, Threadneedle Street, London, E.C.
Branch Offices in London { 60, Charing Cross, S.W. / 382, Oxford Street, W. / 40, Chancery Lane, W.C. / 4, Mincing Lane, E.C.

BIRMINGHAM .....10, BENNET'S HILL.
BRISTOL..... CORN STREET.
LEEDS.....SUN BUILDINGS, 15, PARK ROW.
LIVERPOOL.....SUN BUILDINGS, 6, CHAPEL-ST.
MANCHESTER..... 71, KING STREET.
NEWCASTLE..... 19, COLLINGWOOD STREET.
EDINBURGH.....40, PRINCES STREET.
GLASGOW..... 42, RENFIELD STREET.
DUBLIN .....10, TRINITY STREET.

Funds in Hand, £2,535,800.

LIGHTNING CONDUCTORS.
J. LEWIS,
5 and 6 Great Winchester Street, London, E.C.
TELEPHONE NO. 3053 CENTRAL.

SULPHUME
(SULPHUR DIOXIDE)
FOR
ROOM DISINFECTION
As adopted by the WAR OFFICE, and numerous HOSPITALS, CORPORATIONS, and other SANITARY AUTHORITIES.
MAKERS AND PATENTEES,
A. BOAKE, ROBERTS & CO., Ltd.,
STRATFORD, LONDON, *ENGLAND*.

WARD & MACONIE,
15, HANOVER STREET, LONDON, W.
Municipal Robe Makers and Court Tailors.
PRICE LIST ON APPLICATION.

DELICIOUS COFFEE.
RED
WHITE
& BLUE
For Breakfast & after Dinner.
In making, use LESS QUANTITY, it being so much stronger than ORDINARY COFFEE.

EYRE & SPOTTISWOODE.

SECONDARY EDUCATION IN LIVERPOOL.—Report on Secondary Education, including the Training of Teachers for Public Elementary Schools. By MICHAEL E. SADLER, M.A. Buckram, 2s. 6d.

SECONDARY AND HIGHER EDUCATION. Report on Secondary and Higher Education in Sheffield. By MICHAEL E. SADLER. Paper. 1s.

CHANTREY TRUST. Report from the Select Committee of the House of Lords. 2d.; Evidence, 1s. 11d.

JAPANESE COLOUR PRINTS. By EDWARD F. STRANGE. With numerous Illustrations. 1s. 6d.

ENGLISH PORCELAIN. By A. H. CHURCH, F.R.S. With numerous Illustrations. Paper wrappers, 1s. 6d.; cloth, 2s. 3d.

ENGLISH EARTHENWARE. By A. H. CHURCH, F.R.S. With numerous Illustrations. Paper wrappers, 1s. 6d.; cloth, 2s. 3d.

PUBLIC GENERAL ACTS, 1904 (Cheap Edition). Published by authority. Red cloth, 3s. This volume contains all the Public Acts passed during the Session, with Index to same: also Tables showing the effect of the Legislation, together with complete and Classified Lists of the Titles of all the Local and Private Acts passed during the Session.

THE HOUSING ACTS. By A. P. POLEY, Barrister-at-Law. Fcap. 8vo. 3s. 6d.
"Wherever we have tested it, it seems accurate, terse, and to the point, and there is a good index."—*Pall Mall Gazette.*

A GUIDE TO THE PUBLIC HEALTH ACTS, 1875 and 1890, AND THE LOCAL GOVERNMENT ACTS, 1888 and 1894, with the Incorporated Acts relating to Urban and Rural District Councils, together with the Private Street Works Act, 1892. By L. GACHES, L.L.M., B.A., Barrister, Counsel to the Associations of District Councils (3s. 6d.)

EAST HARDING STREET, LONDON, E.C.

An admirable Food of the
EPPS'S
Finest quality and flavour.
COCOA
Nutritious and Economical.

MUNICIPAL JOURNAL
FRIDAY, DEC. 16, 1904.

NOTES AND COMMENTS.

Power Companies.

A PAPER called *Everyday Electricity* is very angry with the *Municipal Journal* because it has criticised the Yorkshire Electric Power Company. Apparently this interesting monopoly is considered by our contemporary to be beyond criticism. *Everyday Electricity* is especially wroth because we said that the Power Company had "proved exceedingly obnoxious to local authorities." It says that it does not "quite understand in what way the Yorkshire Power Company has rendered itself 'obnoxious' except that it has taken very human measures to protect itself against usurpation of privileges obtained at great expense and in the face of much petty and vexatious opposition." That is a very nice way of putting it. We say that the Yorkshire Electric Power Company is preventing public bodies from running a public service in the public interests, as witness its action in regard to the application of the Doncaster Corporation for an extension of its Provisional Order. Mr. A. J. Lupton, the chairman of the company, said at the last half-yearly meeting that the directors had opposed Bills promoted by local authorities "asking to supply electricity outside their own areas." Those Bills, as Mr. Lupton admitted, were not opposed on public grounds, but "to protect the interests of the shareholders who had invested the large amount of the capital of the company in laying down plant." *Everyday Electricity* looks at this question, as does Mr. Lupton, from the standpoint of the men who have invested money in plant. We regard it from the public point of view, anxious that a service, which by its nature is a monopoly service, shall be retained in the hands of those who, not seeking dividends, will prevent the monopoly becoming oppressive. Our critic says that:—

> the *Municipal Journal* must know perfectly well that in several instances the Bills promoted by the local authorities were calculated to cripple the Yorkshire Power Company, and to render non-effective the purpose for which it was formed.

Why not cripple the Yorkshire Power Company, if, as we contend, its existence is opposed to the public interests? The primary object of these Bills, however, was to extend the areas of certain local authorities for lighting purposes, in order that the benefits of cheap municipal electricity might be more widely distributed.

Boston and Electric Light.

BOSTON Town Council wants to borrow £20,000 for electric lighting purposes, and an inquiry into the application was made by the Local Government Board last week. Boston is badly overridden by companies, and this electricity scheme represents an attempt to shake off the shackles. Both the gas and water supplies belong to companies, and three gas directors are members of the Town Council, so that there was plenty of disinterested opposition at last week's inquiry. Until recently the price of gas at Bostou was 3s. 6d. per 1,000 cubic feet, which is equivalent to electricity at about 5d. per unit. When we remember that the average price of municipal electricity is not more than 4d. per unit, equivalent to gas at 2s. 8d. per 1,000 cubic feet, the reason for the concern of the gas directors becomes manifest. Latterly they have reduced their price to 3s. 2d.. which is still above the equivalent 2s. 8d. at which the Corporation should in the course of time be able to supply electricity. We do not wonder that under these circumstances the gas directors should have endeavoured to impose the "Bermondsey clause" upon the Boston scheme. As the inspector naively remarked, "We have often been asked to introduce it by persons who are interested in gas." At which there was "laughter." We are gratified to think that the Boston public, at any rate, has gauged the purport of the opposition of the Boston gas directors. The gas company, however, has had a good innings. A dividend of 8½ per cent., such as it has now been paying for some time, is not bad in these days, when most things have "gone" and everything else is "going."

Superannuation.

THE need of a general measure extending the provisions of the Poor Law Officers' Superanuuation Act of 1896 to all other local bodies is emphasised this year by the number of private Bills lodged for next session, in which the question is dealt with by authorities anxious to have the principle recognised so far as their own areas are concerned. The Staffordshire County Council and the Stepney Borough Council have deposited measures dealing exclusively with superannuation and provident funds. and the Southend-on-Sea and Bromley Corporations, the Southport, Birkdale and West Lancashire Water Board, and the Humber Conservancy Commission, have giveu notice of bills in which these subjects are treated iu company with other matters. For several years now a Local Officers' Superannuation Bill has been regularly introduced in the House of Commons at the instance of one of the municipal organisations by a number of private members, representative of nearly all sections of political opinion, but it has never had any chance of passing into law.

Trading and Rates.

IT has been reserved for a gentleman belonging to the Liberty and Property Defence League—which is nothing if not ingenious—to make the remarkable discovery that if profits from trading enterprises are set aside for the relief of the rates, the rates are thereby increased. The return compiled by Mr. James Carter, the borough treasurer of Preston, and published in our columns a fortnight ago, has been discreetly left alone by the Industrial Freedom League, which apparently recognises that, from the Trust standpoint ,the less said about it the better. Not so Mr. R. N. McDougall, of the Liberty and Property Defence League, 25, Victoria Street, Westminster. This gentleman has sent out to newspapers far and wide a letter in which he says that Mr. Carter's return "shows conclusively how profits from municipal trading are raising rates everywhere." The statement is rather startling, as it means that income is reduced proportionately as it is increased, and it is interesting to see how Mr. McDougall arrives at his conclusions:—

> Looking through the list of boroughs in Mr. Carter's annual return, we find that those where little or no profit is made have the lowest rates, while those where the profits are over 1s. in the £ have the highest. Thus Bolton, which earns 1s. 1 1-5d. in the £, has a rate of 7s.; Carlisle, which earns 1s. 8d. in the £, has a rate of 6s.; Dewsbury, which earns 1s. 1d. in the £, has a rate of 8s. 1d.; Leeds, which earns 1s. in the £, has a rate of 8s.; Preston, which earns 8d., has a rate of 8s. 10d.

And so on. Mr. McDougall, of course, ignores the damaging facts that the Bolton rates would have been more than a shilling in the £ higher than they are were it not for the profits; Carlisle rates, 1s. 8d. higher; Dewsbury, 1s. 1d. higher; Leeds, a shilling higher; and Preston, eightpeuce higher. Mr. McDougall goes on to develop the extraordinary theory that the best thing that could happen for the ratepayers would be that no profits were made on trading enterprises.

> If municipal trading goes on, Mr. James Carter's annual return, 10 or 15 years hence, will probably show some boroughs to be earning as much in the £ as the present level of their rates. They will earn, let us say, 7s. or 8s. in the £. But will there then be no rates or very low rates? On the contrary, the rates will continue to advance *pari passu* with the increase of profits.

This is excellent unconscious fooling, and emanates appropriately from the Liberty and Property Defence League. But we are afraid Mr. McDougall takes his theory very seriously.

The Real Position.

ACCEPTING Mr. McDougall's demonstratiou at the valuation he himself is evidently desirous of placing upon it, let us test it by a few facts. In respect of the undertakings specified in Mr. Carter's return, no charges are at present falling upou the rates except in one or two cases in which that burden is made clear. At Bacup there is a waterworks deficiency which goes on to the rates; at Manchester there is the Ship Canal rate, which is exceptional, but which Mr. McDougall is welcome to for the purposes of his "argument"; and at Rochdale

there are waterworks and tramways deficiencies which have to be made good out of the rates. Yet even with these burdens the rates of Bacup are still reduced two-fifths of a penny in the £ by profits from markets and other sources; the Manchester rates are reduced 9d. in the £ by profits from the markets, gasworks, and tramways; and the Rochdale rates are reduced by 10d. in the £ from water profits. So that in the very few cases where some trading enterprises add to the rates, the burden is more than relieved by the profits from other trading enterprises. Evidently, then, Mr. McDougall's theory is not supported by the "losses." The only other assumption upon which he can be relying is that the rates are first of all plundered of the profits which relieve them. This argument is, of course, entirely fallacious. The profits are profits shown after the liquidation of the annual capital and other charges, and not a penny is on the rates in respect of the undertakings which they represent. If Mr. McDougall will turn to that return of Mr. Carter's which analyses the rates, and shows of what charges they are composed, and will compare the present return with those that have preceded it, he will find the real explanation of rate increase, which, though not very ingenious, is at least honest and straightforward. He will find that rates are increased by Education, Poor Law, Sanitary, and Police charges, and not by municipal trading enterprises, which relieve them. The remedy for the rise in rates is not to kill the geese that lay the golden eggs, but to acquire as many more geese as it is possible to get hold of, and it is in this work that we inevitably come into conflict with the Liberty and Property Defence League and its agents.

Liverpool's Bill.

LIVERPOOL, which often produces novel proposals in connection with the administration of local government—witness that for the prohibition of street processions—has several noteworthy clauses in its new Parliamentary Bill. Among them is that restricting the occupation of cellar dwellings after December, 1912. The clause provides that "it shall not be lawful to occupy as a dwelling or sleeping room any room whereof the floor is more than 3ft. 6in. below the surface of the adjacent ground." We are all agreed that cellar dwellings ought to be abolished, and if Liverpool is successful in its proposal, many other municipalities will follow the example. The postponement of the operation of the clause for seven years will give plenty of time for the necessary arrangements to be made. Another clause enforces the cleanliness of all accessories and appliances used in hair-dressing saloons, Liverpool thereby attempting to do compulsorily what the City of London has almost achieved by voluntary arrangements. It is further asked that the medical officer or inspector of nuisances shall be able to inspect restaurants, and also to extend the powers of the Food and Drugs Act in the direction of taking samples of the food for analysis. Another important proposal will interest members of the London County Council and other bodies who have attempted—in the main unsuccessfully—to apply the principle of betterment to street improvement schemes. The Corporation asks for powers enabling it to take betterment into consideration in fixing compensation in connection with street or other public improvements; and to empower an arbitrator to refuse to award compensation in the case of a recently-altered building if he shall find the alteration was not reasonably necessary, and was made with a view to obtaining or increasing compensation. This clause touches a very important defect in existing arrangements, and municipal authorities generally will wish Liverpool every success in its efforts towards reform. The clause in the Bill relating to the holding of public meetings is now simply one seeking power to allocate sites in the parks and upon any lands which are the property of the Corporation, for the holding of public meetings, and to make bye-laws regulating such meetings. Other powers enable Liverpool to provide and maintain street newspaper-kiosks, tubs for plants, seats; to make payments out of the general rate for providing music in any public place; to increase the library rate from 1½d. to 2d., and to extend to 80 years the period for repayment of moneys borrowed for housing purposes.

"Payable to Bearer."

LIVERPOOL Corporation is also seeking powers enabling it to issue Corporation bills payable to bearer. This is a very important movement, and if Liverpool is successful, and its example generally followed, will alter the whole aspect of modern municipal borrowing. In the articles we published in these columns a month or two ago we pointed out that the only way to escape the inconveniences of a run of withdrawals in respect of loans on short notice was to adopt some such plan as Liverpool now proposes to follow. We notice that this week one of the elective auditors of West Hartlepool has been calling attention to the danger, which is the only real one in the movement to arrange schemes for small deposits on a sufficiently attractive foundation to divert the savings of the people from national to municipal banks. The West Hartlepool elective auditor says:—

> Should an unprecedented withdrawal take place, and you could not cover the same by reborrowing, it would cause a dreadful panic to levy an exceptionally heavy rate to meet the same, and if you did not do this I fear you would be in the position of mortgagees who are unable to meet their liabilities, for the loans, as per your advertisement, are secured upon the profits and property of the Corporation, and we might have the undesirable spectacle of the town's property and undertakings coming into the market under the hammer.

Municipal credit stands so high that there is no fear of towns being sold up, but there is the danger that reborrowing might have to be effected on onerous terms. By making the bills payable to bearer, as Liverpool proposes, their value would be equivalent to that of the current coin of the realm, and they could be used as such in any emergency.

How to Stop the Anti's.

A CORRESPONDENT writes suggesting that we should endeavour to persuade municipal officials to counteract the influence of the misleading articles regarding municipal enterprise that continually appear in provincial newspapers, by themselves acquainting the editors with the real position of affairs, and endeavouring to place that position before the public in its proper light. The suggestion is a good one, and we have no hesitation in making it public. Newspapers do not err on this municipal trading question because they are head over ears in love with company enterprise, but because the supporters of the latter policy are continually placing their side of the case before them. Local authorities, on the other hand, consistently neglect the newspapers, and as they possess no central organisation which is able to put matters right, the company case is often allowed to go by the board. If municipal officials, when an agitation is in progress in a town, were as careful to acquaint the local editors of the Corporation side of the case as the companies are of theirs, the position would be much better explained than it often is. It is curious to observe how largely this anti-municipal trading agitation is a newspaper agitation. Ask the average ratepayer to choose between a company and a municipality, and his voice is almost always in favour of the latter. The more he is a business man, the stronger he is a municipalist. It is only when you meet the business man who stands to gain from company enterprise that you get an opinion unfavourable to municipal ownership. What the companies do through their newspaper nobbling is to turn the waverers, who hear one side of the case only. If they heard the other they would give their vote to the other side. We hope all municipal officials who are able will take a part in this useful "spade work."

Municipal Theatres.

SIR HENRY IRVING, who was entertained by the Lord Mayor of Manchester this week, made an interesting speech—after luncheon. His imagination carried him forward to the time when the theatre will be a municipal institution, and the actor a municipal official:—

> Does not Manchester (he asked) pride itself, and with justice, on its interest in the arts? And if a theatre were organised as a branch of local government you could organise theatrical taste—not all, but the best of it, on a high plane.
>
> So vast has been the progress of the last 40 years, I will venture to say, that in a lesser time you will have in this great city a municipal theatre, built and endowed for the common good—for the enlightenment and cultivation of the people, for the formation and preserving of a standard of taste to encourage thought and respect for conscious and organised effort for the cultivation of imagination.
>
> You would maintain a body of actors who would have a real and continuous opportunity of learning their profession.

How do the Manchester councillors like the suggestion? Theatrical enterprise, with one or two notable exceptions, has been in a bad way lately, and whilst it is natural to turn to the municipality for a way out, the subject is one that requires very careful consideration. In one respect, at any rate, Sir Henry allowed his imagination to carry him away. He pictured the time, with the theatre a civic institution, when the principal actor will be "elected Lord Mayor by acclamation on account of his mastery of local affairs, and his real administrative gift." The actor, as Sir Henry said, would be an official of the municipality, and it is not the custom to elect officials lord mayors. It would be an interesting spectacle to see the town clerk, the borough surveyor, the medical officer, the tramways manager, the electrical engineer, the manager of the gas works, the manager of the waterworks, and other officials, chosen to the principal office in turn, but we are afraid it would not work. If we municipalised the theatre, Sir Henry, did he apply, would probably get the chief post in London, but he would not, whilst occupying that position, be able to aspire to the chairmanship of the County Council. That would have to be done another way.

POOR LAW OUTLOOK.

The Problem of the Feeble-Minded and a Possible "Way Out." Remarkable Suggestion by the "Times." London's Unemployed Central Committee at Work, and the Great Task Before It. A Union that Tramps Avoid. Christmas Ale in the Workhouse.

The Feeble-Minded.

THE problem of the treatment of the feeble-minded, thanks to the work of the Metropolitan Asylums Board and to the late School Board, can hardly be said to exist in London, but members at the annual conference from the South-Eastern and Metropolitan Poor Law Divisions found a good deal to say on this most important of subjects. The last report of the School Board for London stated that 3,295 mentally defective children were attending special schools, while the results of scheduling showed that the total number of such children in London was 5,549. Using these figures as a basis, Mr. R. A. Bray, L.C.C. (late guardian of the Camberwell Union) who read an opening paper on "The Poor Law and the Feeble-Minded," calculated that the number of feeble-minded juveniles in England and Wales must be at least 100,000.

❦ ❦ ❦

A Real Danger.

AND what are we doing for this enormous army? As we have pointed out over and over again, absolutely nothing. They are left in our workhouse buildings until they are old enough to propagate. The danger, especially in the case of the females, in their wandering over the country a prey to their own passions or of those of unscrupulous persons, is very real. Little can be hoped from the Royal Commission now sitting on the subject. Royal commissions on both the adult and juvenile feeble-minded have sat before. Practically nothing has been done, and this great social problem——perhaps the greatest of social problems, for it goes down to the very roots of the nation—is increasing in extent with the increase of lunacy.

❦ ❦ ❦

The Only Way Out.

THIS South-Eastern Conference, like so many others, was marked by a sterility of suggestions. There was one which met with some support, put forward by Mr. Bray, and, in different words, by Sir Wm. Chance—viz, that the county councils, and not the guardians, were the proper bodies to deal with these children. But if boards of guardians would join for the purpose something might be done at once. Guardians will have to make up their minds to the compulsory detention of this class, or it will grow out of hand. After proper methods of treatment in separate institutions, there will doubtless be a greater disposition towards permanent detention. The imprisonment may thus be robbed of half its terrors, but though a little hard on the class, such treatment is the best, and, in our opinion, the only, course to safeguard the community.

❦ ❦ ❦

The "Times" and the Feeble-Minded.

THE *Times* is very much exercised with this problem of the feeble-minded. It is itself a little feeble-minded in attempting to crack this hard nut, and, after anathematising, *inter alia*, apparently every present method of dealing with Poor Law children, including "defects in the systems of boarding-out and cottage homes," it proceeds in this strain, seemingly with tears in its eyes :—

> It is hard to believe that these anomalies are necessities. It is no less hard to be convinced that the old or, as it may be called, the parochial, way of dealing with the question is nowadays the best. Something more than industrious pottering with the problem is needed. We need constructive charity, a business-like application of means to ends.

The emotion may, perhaps, be excused. The admission that the old way may not be "nowadays the best" is a great admission for the *Times*.

"Communities Remote from Them."

AND what does Printing House Square offer us? Bemoaning the short supply of labour for merchant vessels, for recruits, &c., it lets drop this dazzling suggestion, after plowing the sands to the length of a column of leading article :—

> Guardians and others who are responsible must look around and abroad for divers outlets for their charges. They must consult and concert with communities remote from them.

The brilliancy of this suggestion is perhaps a little dimmed by its ambiguity. Which *are* the "communities remote from them" that the guardians must consult. We might have thought that the *Times* agreed with emigration for the defectives, but that it is expressly stated earlier in the article that such dumping does not meet with its approval.

❦ ❦ ❦

The New Departure in London.

SINCE we went to press with our last edition Mr. Long's Central Unemployed Committee has laid down its rules. We will say at once the rules are good—if they can be followed. The methods of employment and scales of remuneration should obviously vary with the different standards of work and living of the different classes of workmen. The committee has therefore decided to divide those it deals with as follows:—(a) High-class mechanics, (b) men usually in regular work, (c) men accustomed to casual work. The committee adopts Mr. Long's recommendations as to the selection of men, with one or two amendments. In his appeal as treasurer of the fund the Lord Mayor of London this week points out:—

> It is no case of indiscriminate charity, but of well-considered and well-earned assistance to genuine workers who have undeservedly come upon misfortune. Not only will the support given help forward a scheme of temporary assistance. A question of social and national importance is also at stake, for it is permissible to hope that the experience gained by a combined effort on the part of the committee this year may suggest the lines of a permanent solution of the problem of the unemployed.

Since long before the time of Elizabeth the nation has been seeking one.

❦ ❦ ❦

A Start Made.

The enormity of the work before the Central and the Borough Committees is shown by the fact that there are already upwards of 10,000 applicants, and as a beginning it has been decided to send 100 men at once to the Salvation Army colony at Hadleigh. They will go on the same conditions as last year, viz, that their wives and families stay behind and keep their homes together, whilst the men remain at Hadleigh. The families at home will be paid the men's wages, whilst the latter will receive board and lodging and a small sum for personal expenses. This first hundred will be selected from those who are usually in regular work, who have been personally visited by the joint committee, and at least one previous employer seen. Other useful work will be shortly provided. We regard this movement as an earnest search for light, for wisdom is learned by practice, and not by holding problems at arm's length.

❦ ❦ ❦

Discrepancies of Administration.

THE Newcastle-under-Lyme Board of Guardians has a grievance. Though it is much smaller than the neighbouring union of Stoke, it has four times as many vagrants. The Board had asked the Stoke Guardians to issue vagrant tickets for the tramp wards at or near the workhouse, instead of at the Stoke Police Station. The Stoke Board wrote declining the suggestion, and expressing the view that the real cause of the tramps shunning the Stoke workhouse was the adoption in 1901 of the separate cell system, and also the stricter carrying out of the Casuals Order, especially in regard to detention and task of work. The vice-chairman (Alderman Whittingham), of the Newcastle Board, at a meeting this week, denied that the separate cell system, or the detention or task of work, was the cause of the difficulty. His Board, he said,

> adopted the separate cell system long before Stoke, and, as far as its accommodation would permit, it detained regular tramps two nights. Though the task was to break 7cwt. of stone, compared with 10cwt. at Stoke, they had to break it much finer.

We have no special knowledge of the local conditions. The adoption of the separate-cell system, which is somewhat akin to solitary confinement, certainly has a tendency to reduce the number of vagrants by driving them to other unions. But the point of interest in the case is its illustration of the ridiculous inadequacy of our present piecemeal legislation. London is moving towards greater uniformity of administration; why not the country?

❦ ❦ ❦

Brick-Making for the Unemployed.

WITH a view to finding useful work for the unemployed, the Walsall Board of Guardians proposes to lay down brick-making plant in order to use up a large pit mound which covers an area of about three acres, and is situate on land belonging to the guardians adjoining the workhouse. The new scheme is regarded as particularly advantageous, inasmuch as it will set free for cultivation land at present lying idle.

❦ ❦ ❦

Improvement of Tender Forms.

THE forms of tenders put before boards of guardians are capable of very considerable improvement, and this week the Drapers' Chamber of Trade has had the matter before it. A committee reports that it has had several meetings, and fully considered the question of parochial contracts so far as drapery goods are concerned, and in order to assist it in its deliberations copies of tender forms now in use in the unions of the metropolis were obtained. These were carefully perused, and it was found that some were more up-to-date than others, but yet none were, in the opinion of the committee, adapted to the need of the present day contracting, and a form of tender has, therefore, been prepared which the committee recommends the council to offer to the various metropolitan boards of guardians for acceptation. Three of the many suggestions made by the committee are as follow:—(1) The present tender-forms be revised and classified so that each class of goods appears in separate sections, and under names known to the trade. (2) Where goods are required in large quantities, a separate tender-form be drawn up for each class of goods. (3) No contractor be allowed to make any addition, alterations, or amendments to the tender-form.

❦ ❦ ❦

Christmas Ale in the Workhouse.

ONCE more it is seasonable that we should raise our voice against the practice, still too prevalent on the part of boards of guardians, of supplying or increasing the supply of intoxicating liquors to inmates of workhouses. It should be remembered that drink has been the cause of the downfall of so many who are now on the rates, and that the offer is a refined form of cruelty to those who have made a strenuous effort to break themselves of a habit, admitted to be so binding. Ratepayers ought to petition the guardians, where necessary, against the practice. At Windsor a petition of quite another kind has been presented to the guardians from a certain section of the ratepayers, to be discussed at the next meeting, asking permission to give a supply of ale to the inmates, and setting forth that the—

> Petitioners regretted when others were having their favourite beverages that the inmates at Old Windsor were to be prevented from having ale, which they thought was a great hardship, and they did not see why water should be forced upon the inmates any more than beer upon teetotallers.

Those ratepayers who are not of this opinion ought to be up and doing.

WESTMINSTER C.C. OFFICERS' CLUB.

ANNUAL DINNER AND CUP PRESENTATION.

IN excellent spirits the members of the Westminster City Council Officers' Club assembled at the Trocadero on Tuesday evening, for their annual "night off."

The object of the gathering was kept a close secret, and it was annonnced in printed invitations: "You are hereby summoned to attend a general meeting of the above club at the time and place before mentioned."

The town clerk (Mr. John Hunt) took the chair, and there were also present:—

Major-General Lord Cheylesmore, the mayor of Westminster; Alderman Everett, Alderman Tallents: Councillors N. G. Thomas, Browne-Martin, Spicer, Coutts: Messrs. R. Morgan, A. A. Lambert, F. M. P. Townley, H. W. Parker, E. A. Budd, F. Lomas, G. T. Shirley, H. H. F. Butler, W. Wheeler, J. W. Kirk, Arthur Ventris, T. Hensman Munsey, E. J. Selway, A. F. Stallwood, H. S. Monson, R. T. Smith, W. Meaton, J. P. Chance, A. V. Townsend, K. J. S. Harris, W. S. Simpkin, J. Curtis, S. R. Cherrett, Patrick Morrissey,—Waring, F. E. Lawrence, T. S. Robertson, F. Dodman, C. Newman, C. McJerrow, J. G. Alexander, L. J. Veit, J. R. Thwaites, J. F. Graham, R. H. Wimpey, A. Brown, W. W. Williams, R. Blakeway-Phillips, H. Clement Oliver, Ernest Hadfield, F. W. White, T. Mason, J. W. Marsh, J. C. Harvey, R. Stokes, W. S. Sherwood, W. H. Brand, F. W. G. London, A. L. Ware, J. P. Folland, A. Taylor, T. G. Dee, J. Redding, J. H. Redding, F. Hayward, L. B. Gomme, C. A. Mudge, G. J. Stevens, F. Haigh, A. T. Atkins, C. W. Jemmett, Dr. Robinson, and Dr. F. J. Allan.

After grace, to which several of the guests exclaimed "Agreed," probably meaning "Amen," the Chairman said the first item on the agenda was "to consider and dispose of the following matters: ——" ("The following matters" was a menu—and a very good one too.)

The second item on the agenda was "Report of Wine Committee [see copy of report herewith]," and the third "To drink the following toasts: ——" The City Engineer (Mr. J. W. Bradley), in replying to one of several toasts, distinguished "A, B, C," &c., and including, of course, royal and patriotic toasts, proposed the formation of a rifle club, and at the same time offered a donation of five guineas towards the formation; and the idea was taken up by the mayor, who also offered a silver cup for competition as an annual trophy. Councillor Browne-Martin also offered five guineas.

During the evening the president made the presentation of the "Jessel" Cup (presented by Captain H. M. Jessel, M.P.), won in the rowing section, and the "Emden" Cup (presented by Alderman T. W. L. Emden), won in the swimming section, and several prizes.

Another item on the agenda was "to receive [at various stages of the proceedings] the report of the Entertainment Committee, as follows——." Some excellent songs were rendered by Messrs. Fred Curtis, G. Leamar, Patrick Morrissey, and S. R. Cherrett, the latter of whom is secretary of the club.

Since the last annual dinner the club has grown in many directions. In the social section there have been arranged several successful functions, such as a smoking concert, a dance, a whist tournament with the Southwark Borough Officers' Club, &c. The section is arranging for a second concert in January, and a dance in February. The swimming section has been very active, its principal event again this year being the winning of the Local Government (London) Swimming Competition, thus holding the cup, which was wrested from Kensington, for a second year. The "Emden" Silver Cup was allotted to the member who obtained the best aggregate of points for a series of races, and is held for the year by Mr. Atkins, on behalf of the Public Health Department. The cup given by Captain Jessel was allotted to the rowing section, and is held this year by a composite crew representing the Valuation, Public Health, and General Departments. Other races have been run. The cricket section has been exceptionally fortunate, as—although in the first season—it won 15 out of 20 matches, drawing three, and losing two. In tennis also the section has been a success. The club is in a very fair condition, although many members of the staff have not yet joined.

FOLKESTONE CORPORATION OFFICIALS.

ANNUAL DINNER.

THE second annual dinner of the Folkestone Corporation officials took place on Monday at the Hotel. Wampach. Folkestone, the mayor (Mr. Alderman J. Banks, J.P.) presiding over a company of over 50, including the ex-mayor and deputy mayor (Mr. Councillor G. Peden, J.P.), Mr. Councillor A. E. Pepper, Mr. Alderman J. J. Jeal, J.P. (Hythe), Mr. H. E. Stilgoe (A.M.I.C.E., borough engineer, Dover), Mr. Chris. Jones (borough surveyor, Hythe), the town clerk (Mr. A. F. Kidson), borough treasurer (Mr. A. Francis), borough engineer (Mr. A. E. Nichols, A.MI.C.E.), borough accountant (Mr. W. H. Routly), sanitary inspector (Mr. J. Pearson), &c. Apologies for absence were received from Mr. H. P. Maybury (county surveyor of Kent) and Mr. G. S. Wilks (town clerk, Hythe).

An excellent dinner having received justice, and the Royal toasts responded to, the borough treasurer proposed the toast of "The Mayor and Town Conncil," alluding to the fact that Alderman Banks, though 82 years of age, and having served 47 years on the Council (this being his fifth term of office as Mayor) was still one of the most active members of the Corporation.

The town clerk next gave the toast "Officials of neighbouring authorities," which was responded to, in the absence of the county surveyor, by the borough engineer of Dover, who laid stress on the need of a municipal officers' superannuation fund, which was also advocated by the mayor, in responding to the toast of "The Chairman," proposed by Mr. Councillor Peden.

His Worship also remarked that if he were offered the mayoralty in three years time (which would complete his jubilee as a member of the Council) he hoped he would be able to accept it, thereby creating a record in England. An enjoyable musical programme was given by various officers.

MODERN GAS LIGHTING AND COOKING.

ONE of the most interesting, and certainly the most up-to-date, exhibit at the International Gas Exhibition at Earl's Court is that of the Gas Light and Coke Company, of Horseferry Road, Westminster.

The completeness of this exhibit will be understood when we state that it consists of a parlour and kitchen fully furnished in the style of the respectable working-class.

The parlour is lighted by a pendant with incandescent burner and opal shade. Over the mantlepiece are neat brackets, designed to show the style for bedrooms, and a glowing gas fire burns in the pretty stove, the whole effect being most pleasing.

Passing into the kitchen we find the cooking stove, a model of neatness. It contains a 14-inch oven, two boiling burners, and a griller. The company bears the whole of the initial cost of these installations, the consumers paying a slightly increased price per cubic foot for gas used, instead of rent for the use of the company's fittings.

The working man has always a dread of quarterly bills, the exact amount of which he is unable to gauge definitely; so the Gas Light and Coke Company arrange to supply all these fittings with the gas passing through the "penny-in-the-slot" meter.

There are over 185,000 of these meters in use in the company's district, and we understand the number is rapidly growing.

The *Lancet's* Analytical Sanitary Commission demonstrated the many advantages of gas over coal fires, and we believe they are now used in many hospitals in the place of the latter.

Another section of this exhibit shows a shop window illuminated by incandescent gas.

The company is prepared to demonstrate the advantages of incandescent gas for public lamps and the illumination of churches, market places, and public buildings, and makes a feature of complete maintenance of their system as well as its installation.

THE "CENTURY" LIGHT.

THE "last word" in lighting matters will probably never be spoken. The inventive ingenuity of man in this direction seems to be limitless. The coming of the electric light was regarded by many as the funeral knell of gas. But althongh the newer light has displaced the old, to some extent, it has at the same time given an impetus to the spirit of invention in the domain of its rival. The innumerable improvements in gas lighting that follow each other in rapid succession bear witness to the stimulating effect of the formidable competition of electricity.

A system that is attracting considerable attention at the International Gas Lighting Exhibition is that introduced by the Air Light Company, Limited, of 53, Victoria Street, S.W. It is claimed for this light that it combines the important qualities of high-power, economy, and simplicity. By means of a ventilating fan—supplying air in volume but low in pressure, and worked by electric, gas, water, or any other convenient type of motor — an intensified light of any power and the highest efficiency is produced. The air is distributed by air ducts made np from wood or very light metal: there is no pressnre to sustain, and they are kept charged with air, which freely passes out at the burners whether ignited or not. Being under constant load, all compensating or adjusting or controlling automatic devices are dispensed with.

There is a distinct advantage in the fact that an accidental stoppage of the motor wonld not leave the lights useless, but only dimmed, and capable of being at once turned up to ordinary power.

What scientists call "intrinsic brilliancy" is the aim of the "Centnry" system. It is secured by the distribution of air as above described. The volume of air required is so small that the power may be derived from a small electric motor and fan such as is used for cooling rooms in summer. The distributing system, owing to the absence of pressure, may be made of wood, or a thin gauze of zinc, or even papier mache.

The system seems to us to well deserve the attention of members and officials of public bodies, and it is specially adapted to the illumination of public halls and institutions of all kinds.

The firm also exhibits a machine which it has named the "Permetor," which delivers air and gas in the proportion of two of the former to one of the latter.

The economy and advantages of such a mixture are well-known, but the method of production by this apparatus is claimed to reduce the process to the ntmost simplicity.

A SYSTEM OF MIXING GAS AND AIR.

THE Smethurst Furnace and Ore Treatment Syndicate, Limited, of 3, Great Winchester Street, London, is exhibiting at the Gas Exhibition a system of mixing combustible gas and air. An interesting practical demonstration of the method is on view in the form of a water burner in action, showing a flame continuously burning under water. The gas and air being already mixed, the flame is independent of any outside supply of air. In the result, it is claimed that 90 per cent. of the total heat of the gas is utilised in the heating of water or the melting of metals.

To anyone with even a superficial knowledge of the subject, it is evident that a great saving is thus possible. By making available nearly the whole of the heat of the gas, the work of melting metals is accomplished in a fraction of the time occupied by the process under other conditions.

This economy of time is, of course, accompanied by a great saving of gas by concentration of the heat in a small compass. This burner can be used in place of a boiler in cases where steam heating is reqnired, and any desired temperature may be secured. The exhibit comprises examples of the applications of the system for melting-furnaces, for evaporation, for forging-furnaces, and for hardening and annealing-furnaces, whilst specimens of materials treated are also shown.

ELECTRICITY SUPPLY.

Can the Position of an Undertaking be Improved by Selling Below Mean Cost of Production? A Reply from the Status Quo at West Bromwich. Matters Electrical at Maidstone, and the Promises of the Immediate Future. The Vagaries of Results as Brought Out by Comparisons.

THE results of last year's working of the electricity supply undertaking of the borough of Maidstone are probably the last in which a deficiency will be recorded, as the addition of a traction-load will augment the output without substantially increasing the capital charges which at present are the heaviest burden on the business. It will be seen from the figures we give below that the gross profit was £2,508, but this was insufficient to meet the capital charges of £3,783, and in consequence there was a nett loss of £1,275. The private output is sold at a very low rate for a small concern in a district where coal is an expensive item, and at 3·207d. per unit average it is not surprising that the income fell short of the expenditure, especially as the still lower charge for the public lighting units caused the average return on the whole output to be almost exactly 3d. per unit. In the miscellaneous receipts are included sale and repair of lamps, wiring done, the proportion of profit attributable to year from "free wiring account" (a sum of £9), and a similar item for profit on motor account (between £3 and £4). The revenue account as set out in the annual statement shows that:—

The revenue derived from sales of current, &c., amounted to	£6,288
And the working expenditure to	3,780
Leaving a gross profit of	£2,508
Out of this sum the following requirements should have been met:—	
Interest on loans	£1,619
Interest on overdraft	136
Repayments of loans	2,028
Total of capital charges	£3,783
Less gross profit as above	2,508
Deficiency for year	£1,275

❦ ❦ ❦

Maidstone's Growing Business.

THE low charges are having the desired effect of bringing customers to the department, and it is encouraging to find that 8,887 lamps were added during the year, making the total private connections equal to 27,327 lamps. The public lighting by arc lamps has not been increased, but 150 Nernst and 125 incandescent lamps have been added, making a total for this purpose of 46 arc lamps, 150 incandescent, and the Nernsts alluded to. The load has correspondingly risen from 223 to 351 kilowatts. In the revenue a sum of £31 for abatements on goods purchased is included. As this represents a deduction from the costs, it has been taken from the expenditure and eliminated on the income side when the receipts appear under their various heads as follows:—

MAIDSTONE.	Units.	Yielding.	Per unit.
Private consumers took	336,695	£4,499	= 3·207d.
Public lamps consumed	138,028	1,455	= 2·530d.
Interim total	474,723	£5,954	= 3·010d.
Meter rentals	—	132	= ·067d.
Sundry work done and goods supplied	—	171	= ·086d.
Total receipts	474,723	£6,257	= 3·163d.
Units used on works	19,971	(The maximum load was 351 kilowatts,	
Total accounted for	494,694	corresponding to a	
Utilised on distribution	83,473	load-factor of 15·44 per cent.)	
Total units generated	578,167		

❦ ❦ ❦

Capturing a Motor Load.

THE importance of the capital charges will be seen by comparing the first statement with the analysis of the allocation of the receipts. Practically half the total actual cost of each unit sold is due to capital charges, an item over which the management has no control whatever, and it ought not to be difficult to spread these over a larger output, so that they are brought down to the average elsewhere, in which case the deficiency should disappear. A load-factor of over 15 per cent. is indicative of strenuous efforts having been made to capture a motor-load, and we believe that at Maidstone long-hour motors are supplied at a penny, or slightly over, per unit, which will be a remunerative price under the circumstances. The receipts were allocated in the following manner:—

	Amount.	Per unit.	
Works cost	£2,591	= 1·310d.	
Rates, taxes, and management	769	= ·389d.	
Total cost, *less* rebates allowed	£3,360	= 1·699d.	
Public lamp maintenance	389	= ·196d.	
Gross cost	£3,749	= 1·895d.	
Interest charges	1,755	= ·887d.	1·913d.
Repayments of capital	2,028	= 1·026d.	
Total actual cost of units sold	£7,532	= 3·808d.	
Less deficiency for year	1,275	= ·645d.	
Nett receipts for year	£6,257	= 3·163d.	

❦ ❦ ❦

An Object Lesson from West Bromwich.

QUESTIONS which are often asked by members of electric committees are: How is it possible to sell at an average rate below the mean cost of production and do so remuneratively, so as to improve the position of an undertaking? And, if a department is making a loss on its working, should not the price be increased? It is not difficult to reply to these conundrums by an argument based on the separation of standing and running costs, but an example is oftentimes simpler to follow than abstract reasoning, and it so happens that the accounts for the past two years of the county borough of West Bromwich afford one of the most illustrative cases which could be desired to make this difficulty one which need not in the future stand in the way of engineers. Here is an undertaking now making nearly as large a profit per unit as it formerly made a loss. From a deficiency of £436 it now shows a surplus of £1,545, and at the same time the average receipts have *fallen* from 2·461d. to 2·015d. per unit.

To show the character of the changes which have brought about this satisfactory state of things we will tabulate the more important details of the accounts for the last two years, and also give their differences, thus:—

Year.	Revenue.	Expenditure.	Gross profit.	Capital charges, &c.
1904	£9,318	£4,760	£4,558	£3,013
1903	2,930	2,159	771	1,207
Increase	£6,388	£2,601	£3,787	£1,806

The output increased by 819,158 units, corresponding to an augmentation in revenue of £6,388, from which the extra expenditure, amounting to £2,601, has to be deducted, leaving the gross profit greater by £3,787. As capital charges, &c., required £1,806 more than before, there remained £1,981, which sufficed to turn the previous deficiency of £436 into a surplus of £1,545.

❦ ❦ ❦

Increased Output and Selling Price.

SO far, there is nothing extraordinary about the results. The surprising feature to the non-engineering mind is the fact that the main factor in producing the change was the increase in the output at 2d. per unit, whereas the total actual cost before was 2·827d. per unit. For it was not the rise in higher-priced units which made the difference.

	Private and public.			Traction.	
	Units.	Units.	Yielding	Units.	Yielding
1904	271,096	42,557	£2,772	791,353	£6,503
1903	178,308	1,593	1,873	105,947	883
Dif'r'nce	£92,788	40,964	£899	685,406	£5,620
		133,752			

The increased output was 819,158 units, and the extra revenue £6,388, so the addition was almost made up of 2d. units, upon which the lighting increase could have little influence. The revenue consequently fell from 2·461d. to 2·015d., or ·446d. per unit, the expenditure from 1·813d. to 1·034d., or ·779d. per unit, capital charges from 1·014d. to ·646d., or ·368d. per unit. The difference between the reductions in expenditure and revenue was ·333d. per unit, and this added to the smaller capital charges made ·701d. per unit, which is equal to the loss of ·366d. in 1903 and the surplus of ·335d. per unit in 1904. In fine, the effect of increasing the output by 819,158 units, of which the greater part was sold at a high load-factor, was to diminish the expenses by 1·147d. per unit against a reduced average selling price of ·446d. per unit, so that the undertaking directly gained ·701d. per unit. The *average* cost per unit is, therefore, no guide whatever, by itself, as to the rate at which motor power or traction units can be profitably sold. The advantages derived from an increased output (coupled in most cases with an enhanced load-factor) will enable these additional units to be generated so cheaply that the average *new* cost will be less than the selling price, which was less than the *old* cost rate.

❦ ❦ ❦

Surplus Under New Regime.

HAVING shown the effect of the change which has come over the fortunes of the West Bromwich undertaking, the results for last year can be set out in full:—

The revenue derived from sales of current, &c., amounted to	£9,318
And the working expenditure to	4,760
Leaving a gross profit of	£4,558
Out of this sum the following requirements were met:—	
Interest on loans	£1,474
Bank interest	300
Sinking fund instalments	1,199
Bad debts	40
Total of capital and special charges	3,013
Surplus on year's working	£1,545

Eliminating bad debts from the receipts, these were obtained in the proportions:—

WEST BROMWICH.	Units.	Yielding.	Per unit.
Private consumers took	271,096	£2,611	= 2·311d.
Public lamps consumed	42,557	161	= ·908d.
First interim total	313,653	£2,772	= 2·121d.
Traction sales amounted to	791,353	6,503	= 1·972d.
Second interim total	1,105,006	£9,275	= 2·014d.
Sundry receipts	—	3	= ·001d.
Total receipts	1,105,006	£9,278	= 2·015d.
Used on works	19,039	(The maximum load was 788 k.w.,	
Total accounted for	1,124,045	corresponding to a	
Utilised on distribution	129,143	load factor of 16·01 per cent.)	
Total units generated	1,253,188		

As the load-factor is by no means exceptionally high the improvement in the position has been brought about principally by increase in output, and our expectation (June 12th, 1903) that "the loss would disappear before another year is reported," has been fully realised.

❦ ❦ ❦

Total Receipts.

THE plant installed is now 1,150 kilowatts, so that there is still plenty of room for expansion. This is the third year of operation, the growth being shown by these figures:—

ELECTRICITY SALES.

	Traction.			Power.		
1902.	4½d.	3½d. 2d. & 1½d.		1½d.	1d.	Total.
Units	23,758	144	—	35,554	3,438	62,894
Yielding	£442	£2	—	£222	£14	£680
1903.						
Units	64,636	1,086	105,947	81,383	32,796	255,848
Yielding	£1,212	£16	£883	£509	£137	£2,757
1904.						
Units	87,590	1,227	791,353	112,459	69,820	1,062,449
Yielding	£1,643	£18	£6,503	£700	£291	£9,155

	1902.	1903.	1904.
Maximum supply demanded	122 k.w.	568 k.w.	788 k.w.
Maximum plant installed	250 k.w.	650 k.w.	1,150 k.w.
Gross profit	—	£771	£4,519
Gross deficiency	£468	—	—
Capital invested	£27,596	£40,058	£56,506
Capital per k.w. installed	£110	£62	£4

The receipts were taken up and appropriated thus:—

	Amount.	Per unit.	
Works cost	£3,797	= ·825d.	
Rates, taxes, and management	769	= ·166d.	
Total cost	£4,566	= 0·991d.	
Lamps sold and work done	19		
Rentals of motors	80	= ·043d.	
Free wiring costs	95		
Gross cost	£4,760	= 1·034d.	
Interest charges	1,774	= ·385d.	·646d.
Sinking fund charges ...	1,199	= ·261d.	
Total actual cost of units sold	£7,733	= 1·680d.	
Surplus for year	1,545	= ·335d.	
Receipts in all	£9,278	= 2·015d.	

The sum given for rental of motors is an amount credited in error in the previous year. Had this not been so included, the improvement in 1904 over 1903 would have been further emphasised.

A Comparison.

THE capital invested in the undertakings whose last published results we have presented in this issue was covered by the following classes of disbursements:—

	Maidstone.	West Bromwich.
Lands	£1,000	... £1,268
Buildings	8,709	... 7.578
Machinery	16,020	... 24,625
Accumulators	1,395	... 2,209
Mains	20,142	... 13,810
Meters and indicators	1,818	... 1,953
Electrical instruments	123	... 183
Public lamps	3,044	... 711
	1,828	... 4,169*
Total expended ...	£54,079	... 56,506

* Including free wiring £1,835, and motors £1,325.

The capital expenditure in these undertakings is so near in the totals that it affords an insight into the vagaries of results to set the salient points against one another.

	Maidstone.	West Bromwich.
Output	474,723	... 1,105,006
Surplus...	—	... £1,545
Deficiency	£1,275	... —
	Per unit.	Per unit.
Average selling price	3·163d.	... 2·015d.
Total cost	1·699d.	... ·991d.
Capital charges ...	1·913d.	... ·646d.
	Without traction load. At distance from coal-fields.	With traction load. Adjacent to coal-fields.

An exhaustive examination of accounts could not produce two undertakings with more dissimilar characteristics coupled with investments akin to one another. It is hardly necessary to dwell upon the fallacy of instituting comparisons between the attainments of stations which may be alike in size but unlike in nearly all of their other attributes.

LUDLOW AND ITS ELECTRICITY SUPPLY.

THE Ludlow Town Council has given its consent to a private individual (Mr. W. Norton Cowe) applying for a Provisional Order for supplying and storing electricity in the borough on the following conditions:—That the Corporation have the option of purchasing the undertaking in twenty years instead of twenty-five years; that the opening of the streets be done by the borough surveyor, at a fixed charge; that they consult the Corporation as to the position of the cables, feeding boxes, &c.; and not to construct any overhead wires without first obtaining permission of the Corporation; the price to the Corporation for public buildings, street lighting, &c., to be 4d. per Board of Trade unit; but should the price be reduced to 5d. for the general public, then the price to the Corporation to be reduced in proportion. How much more simple and satisfactory it would be for the Council to do the work itself. A Council which will not take the very slight risks of running such an enterprise cannot surely be composed of business men.

IN TOY LAND.

ECONOMY will have to be studied in many households this Christmas, and doubtless care will be taken to find the shop where the greatest value can be obtained for the smallest outlay.

A visit to Mr. John Piggott's Bazaar, 117 and 118, Cheapside, and Milk Street, E.C., will prove a source of delight not only to those with well-filled purses, but to those with whom a little must go a long way. The variety of clockwork toys at the low price of 10d. is very astounding, and includes the milkman with his barrow, the motor car whose "frightened" driver moves his head with every revolution of the wheels, and others too numerous to mention.

Foremost among the English-made toys is a big cannon, well mouthed on a wooden carriage, which fires a ping-pong ball sufficiently far to delight any boy and to become the terror of his father.

Continuous mountain railways, and cars that loop-the-loop are arranged in working order.

Among the newer goods may be mentioned the spinning plates. These tin plates are made to revolve apparently by the touch of a wand, but on examination it is found the wand contains ingenious mechanism which does the trick.

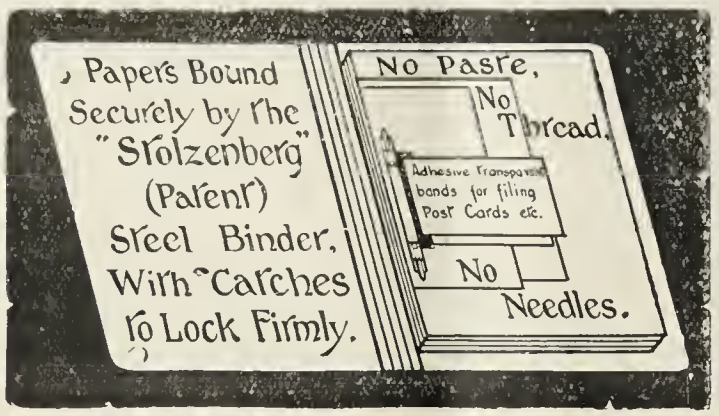
Working models of Sir Hiram Maxim's aerial roundabouts can be had from 10d. to £5.

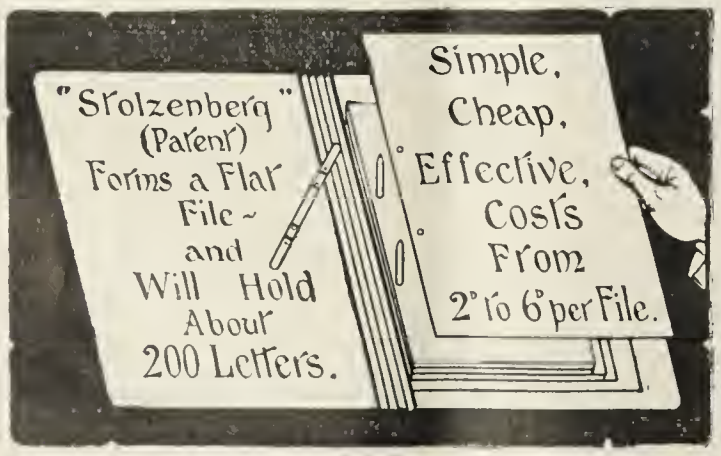
Some good bargains are obtainable amongst a host of traveller's samples.

The bazaar is well and artistically arranged, and the courteous attendants spare no pains to satisfy the wants of customers.

THE Leeds Corporation intends making application to the Local Government Board for its sanction to the borrowing of £5,000 for the erection of offices and other buildings at the new Highways Depot in Kirkstall Road, in place of those authorised by resolution of the Council in October, 1903, to be erected at the Whitehall Road Depot.

THE STOLZENBERG SYSTEM OF FILING


Papers Bound Securely by the "Stolzenberg" (Patent) Steel Binder, With Catches to Lock Firmly.
No Paste.
No Thread.
Adhesive Transparent bands for filing Post Cards etc.
No Needles.



EXTENSIVELY USED BY

Government Departments, Borough Corporations,
County Councils, Boards of Guardians,
Education Authorities, Technical Instruction Committees,
and the Largest Private Business Houses.

The Stolzenberg Filing System stands alone. It is admitted by authorities on business method to be the best. You can start with one simple unit to-day, as shown in the illustration, and by orderly, logical expansion build it up to a filing system adequate for the work of a large government office.

Note the unique features.—One file for each client or subject. Every letter or paper filed in the order of its receipt. Less space, less time, less expense. At your finger ends there is a complete record of the memoranda on any one subject in one compact file—not in six or a dozen bulky volumes.

Sample Set of Six Files and Slit Perforator, 3s. post free.

Literature on Filing and Miniature Specimen free to readers of the MUNICIPAL JOURNAL from

The STOLZENBERG (Patent) FILE CO.,

50, BISHOPSGATE STREET WITHOUT, LONDON, E.C.

TRAMWAY TOPICS.

The Controversy over Proposed Electric Tramways for Heywood, Bury, and Rochdale. Satisfactory Reports from Ayr, Newcastle, and West Ham. Yarmouth Accepts a Belgian Rails Contract. Penny Fares at Cardiff as Compared with other Large Cities.

AT last week's meeting of the Heywood Town Council, Mr. Thomas Popple, the chairman of the Electricity and Tramways Committee, explained the position with regard to the proposal that the Corporations of Bury and Rochdale should run electric tramcars within the Borough of Heywood. The Corporation of Bury, he said, had agreed to Heywood's suggestion that the amount per mile that Heywood should pay for working the cars should be referred to some independent person for settlement. As the electric cars would not be running for some time, the Committee had purchased a number of the old steam cars and engines, and the arrangements had been practically completed to enable it to begin running the cars in the Borough of Heywood. When he mentioned the matter to Mr. Dunning, the chairman of the Rochdale Tramway Committee, he stated—of course in his private capacity—that there would be no objection to the Heywood cars running to Sudden, the terminus of the Rochdale electric cars. The Rochdale Tramway Committee, however, had decided that that matter must stand over until Heywood and Rochdale had agreed upon terms for the running of the future electric trams. Mr. Alderman Hodgkinson urged that the best way out of the difficulty would be for Heywood to have its own trams and to have running powers into Rochdale and Bury, giviug those towns in return running powers into Heywood.

❦ ❦ ❦

Six Months at West Ham.

THE West Ham tramways accounts for the half-year ended September last show that the gross revenue amounted to £30,748 1s. 2d., the actual revenue from the Council's electric cars being £27,748 1s. 2d., and the estimated profit due from the North Metropolitan Tramways Company in respect of horse cars worked by it on behalf of the Council being £3,000. The total amount of working expenses was £17,350 9s. 8d., leaving a balance to be carried to the nett revenue of £13,397 11s. 6d. In arriving at this result the account has been debited under various headings with sums representing approximately the amount chargeable in respect of central administrative departments, including an estimated sum for printing, stationery, establishment charges, Town Hall office accommodation, &c., and an amount of £182 (as agreed between the electrical engineer and the tramways manager) in respect of management expenses in the electricity department properly chargeable to the tramways undertaking. A sum of £1,000 has also been written off in respect of temporary car shed and offices in West Ham Lane, leaving a further amount to be defrayed out of revenue during the next three half years of £3,244 15s. 1d.

❦ ❦ ❦

The Balance.

Following the form laid down by the Institute of Municipal Treasurers and Accountants (Incorporated), after conference with the Municipal Tramways Association, Mr. Patterson, the borough treasurer, has charged as expenditure only interest on capital, £4,510 5s. 9d., and bank interest, £38 10s. 11d., leaving a balance of £8,848 14s. 10d. The amount available, viz., £9,179 7s. 4d., is made up of the balance of £8,848 14s. 10d., and an unappropriated balance brought forward at the 31st March last of £330 12s. 6d. The first obligation to be met is the contribution to sinking fund, viz., £2,162 19s. 7d. This leaves a balance of £7,016 7s. 9d., which Mr. Patterson recommends be disposed of as follows:—Moiety of contribution to borough fund, in accordance with resolution under date the 27th September last, £4,000; contribution to reserve or renewals fund, £3,016 7s. 9d.—£7,016 7s. 9d. The total borrowings to the 30th September amonnted to £248,253 8s. 2d., the expenditure being £196 538 5s. 3d., leaving a balance unexpended of £51,715 2s. 11d.

❦ ❦ ❦

Tramway Workers' Benevolent Fund.

THE tram workers of West Ham are forming a benevolent fund in connection with the local branch of the Amalgamated Association of Tramway and Vehicle Workers, and on Monday they held a concert at the Stratford Town Hall with the object of obtaining a nucleus with which to start the fund. The concert was distinctly a success, the hall being fairly well filled, and it is hoped that a good ronnd sum will be realised as a result. Councillor W. Godbold, who is an honorary member of the branch, occupied the chair.

❦ ❦ ❦

Newcastle Tramways.

FOR a period from 25th March to 29th September last, the Newcastle City Tramways show a balance of income over expenditnre, after having dealt with the items applied to the period under consideration, of £3,413 5s. 5d. According to an interim report, this balance is subject to adjustments that will be necessary on the horse account consequent on the death of two horses which should be debited to revenue at the rate at which these particular horses were valued at March last. Rolling stock should be adjusted by the writing off to revenue of such expenditure under this head as cannot reasonably be considered to have increased the value of the asset, and it is also mentioned that beyond the depreciation represented by the repayment of loans no provision has been made under this head.

REVENUE ACCOUNT FOR HALF-YEAR ENDED SEPT. 29 1904.

To power and pumping stations, &c. ...	£5,288	5	8
,, public street lighting	268	17	9
,, general expenses	8,541	7	7
,, traffic expenses	36,924	7	7
,, maintenance	16,401	7	5
,, balance down	34,814	17	1
Total	£102,239	3	1
To interest	16,805	13	1
,, redemption...	14,595	18	7
,, balance	3,414	5	5
	£34,8	15171	
By traffic receipts	£100,194	1	5
,, receipts for car damage	22	13	6
,, advertising receipts	139	10	6
,, Public street lighting receipts ...	1,430	0	0
,, rents (shops, &c.)	265	3	1
,, public supply receipts (for lighting public buildings)	126	16	2
,, Sundry receipts	60	18	5
	£102,239	3	1
By balance down	£34,814	17	1
	£34,814	17	1

❦ ❦ ❦

Successful Ayr Tramways.

IN two and a-half years the Corporation of Ayr, over and above paying working expenses on its tramways, maintaining the whole system in good working order, and paying interest on borrowed capital, shows a clear surplus of £10,579. The entire capital spent has been £77,259; set aside for depreciation, £5,484; repaid, £1,665; sinking fund, £497; and reserve fnnd, £2,931. The working expenses come out as low as 5·16d. per mile. The second annual report for the year ended 15th May, 1904, shows that there are now 17 donble-decked cars, 10 of the reversed staircase type seated for 57, and seven with the ordinary staircase seated for 59, and one combined water-car and snow-plough. One new car has been added, and ten cars repainted and rewheeled with tyred wheels. Those wheels are very quiet running, and do not develop "flats," but have not the life that was expected from them, the flanges, althongh never touched by the brake shoes, being worn off after running 20,000 to 30,000 miles. According to Board of Trade requirements, all the cars are now fitted with earth indicators.

Parcel-Carrying and Greater Speed.

THE Corporation has been hampered in its business by the great restriction on the speed of its trams. At its request, Colonel H. A. Yorke inspected the lines, and granted the Corporation two miles more per hour on nearly every section of the road, so that the maximum is now 12, instead of 10 as before, this being the highest the Board could grant on a tramway with so much single line. In his report to the Board of Trade he gives as his chief reason for granting the request that the tramways have been very carefully and successfully operated from the first. Another point for congratulation is that the parcels-carrying branch of the business is growing, and as people get to know it better even better results are expected. This year's earnings were £51 against £31 the year before.

❦ ❦ ❦

Belgian Rails Accepted.

YARMOUTH Town Council, on Tuesday, considered tenders for between 800 and 900 tons of steel rails and other material for new electric tramways. Of six complete tenders three were for Belgian manufactured materials. The lowest Belgian tender quoted the rails at £4 15s. per ton, and the lowest English rails were priced at £5 4s. 6d per ton. The borough surveyor said the previous rails laid were Belgian, and he found them perfectly satisfactory. Only seven members voted for an amendment that no foreign tenders be considered, and the lowest Belgian tender was accepted by a large majority. The borough surveyor estimates that this course will effect a total saving of £950.

❦ ❦ ❦

Higher Fares Proposed at Cardiff.

THE recommendation of the Cardiff Tramways Committee for a revision of fares on the electric tramways section as and from the 1st of January next, gave rise to a good deal of discussion at a meeting of the Council on Monday. The proposals of the committee were in favour of a general increase in the amounts charged at present, it being suggested that a penny fare shonld carry a passenger on an average 2,308 yards. In London a penny carries a person 4,400 yards; in Glasgow, 4,048 yards; in Liverpool, 4,100 yards; in Manchester, 3,696 yards; in Bradford, 2,992 yards; and in Leeds, 3,085 yards. Consideration of the matter was adjourned.

❦ ❦ ❦

Stalybridge Difficulty.

STALYBRIDGE is still in a difficulty about its tramways. At the monthly meeting of the Town Council on Tuesday, there was considerable discussion about the new joint tramways and the deadlock between Ashton and Stalybridge as to inter-running powers. "Could the chairman give the Council any idea as to how soon there was likely to be an agreement between Ashton and Stalybridge?" was asked. The chairman of the Joint Tramways Board (Mr. Alderman Ridyard) said he could not answer any of the questions; he wished he could. They had offered to Ashton similar terms to those which applied between Manchester and Ashton, but Ashton had not accepted their proposal. He had suggested that they should invite Mr. Boyle, the chairman of the Manchester Tramways Committee, to be chairman of their next meeting, and that he should bring his manager, Mr. M'Elroy, with him; but Ashton would not accept that.

❦ ❦

Municipal Tramways Football League.

WE have received the following for publication:—

	Pld.	Won.	Lost.	Drn.	Goals For.	Agst.	Pnts.
Manchester ...	3	3	0	0	11	4	6
Sheffield ...	2	1	0	1	6	3	3
Liverpool ...	4	1	2	1	6	9	3
Wigan	4	0	2	2	4	6	2
Southport ...	3	1	2	0	5	10	2

Results of matches played on 7th and 8th December, 1904:—Wigan 2, Sheffield 2; Liverpool 2, Southport 1. (As played up to 9th December, 1904.)

Claim Against the L.C.C.

THE Woolwich and South-Eastern Tramways Company. Limited. is claiming for compensation on the transfer of its system to the L.C.C. The company owns 4½ miles of line, with offices and depot and horse car equipment, and its total claim is for £85,813. Of this sum £25,000 is in respect of street widenings which have not been made. This week Major Cardew, sitting as arbitrator, resumed the hearing of evidence in the claim. Mr. Kincaid, C.E., valued the permanent way at £25,917. He considered the life of the line should be taken at 25 years, which meant that it would have to be relaid at the end of three years from this date. Mr. Hopkins, who acted as engineer to the Liverpool Corporation, gave it as his opinion that the constructional value of the line was £38,625. After making allowance for depreciation, he considered that the present value of the permanent way was £23,051.

Chesterfield's New Tramways.

THE Chesterfield public is waiting for the commencement of the running of the electric tramway. The Tramways Committee hoped that the Board of Trade would be able to send an inspector to-day (Friday), and that the cars would begin to run to-morrow—market day. The Committee has, however, received an intimation that the inspection will not take place till Tnesday next. Immediately the line is officially passed, the cars will begin earning money—week-day and Sunday. It is said that everybody likes the cars, which are of a most up-to-date kind, and there seems a general opinion that the committee and the contractors have suceeded in providing the community with a first-class tramway system in a very reasonable stretch of time. The question of fares to be charged will, it seems likely, cause some agitation, but in this matter the committee is following the advice of an expert.

South Shields Tramway Undertaking.

SOUTH SHIELDS Town Council, which has resolved to municipalise the tramway system of the town, decided this week to commence the laying of lines for an electric system at the earliest possible date, although the lease of the horse tramways does not expire for twelve months. It was agreed to advertise for tenders for the carrying out of the undertaking in the portions of the borough where the present system does not exist. These lines will run into districts which have sprung up within the past few years.

MUNICIPAL ELECTRIC TRAMWAY RETURNS.

Undertaking.	Date of Opening.	Length of Route.	Total Length Track.	Year ends.	Last Weekly Return.		Corresponding Week 1903.		Total Receipts for Year.	
		Miles	Miles		Receipts.	Passengers.	Receipts.	Passengers.	1904.	1903
Aberdeen	Dec. '99	2·50	5	May 31	1,035	—	1,079	—	40,623	34,895
Ayr	Sept. '01	6	8	—	165	49,019	169	49,649	10,285	9,796
Birkenhead	Feb. '01	13·52	23·53	March 31	939	195,455	975	204.731	38,498	39,040
Blackburn	Mch. '99	13½	13½	March 25	707	133,724	700	128,537	33,416	30,120
Blackpool	Oct. '84	3	6	March 31	278	—	247	—	42,637	36,703
Bolton	Nov. '99	25	35	March 31	1,626	359,800	1,660	365,065	68.295	67,807
Bournemouth	July '02	11·8	18·2	March 31	762	146,974	770	144,259	52,445	17,637
Bradford	July '98	53¾	95¼	March 31	3,607	—	3,314	—	162,147	135,714
Brighton	Nov. '01	6·5	11·75	—	719	163,295	721	173,148	—	—
Burnley	Mch. '02	10·60	10·60	March 31	943	178,453	747	134,615	—	—
Cardiff	Dec. '01	16	30	March 31	—	—	—	—	—	—
Darwen	Oct. '00	4·5	4·25	Dec. 31	—	—	—	—	—	—
Dover	Sept. '97	3·5	4·5	March 31	172	44,323	176	45,340	8,461	8,651
Dundee	July '00	12·56	23·1	March 31	808	—	768	—	24.512	—
East Ham	June '01	6·6	10·75	March 31	583	221,291	563	219.074	26.430	24,945
Glasgow	Oct. '98; Extens., April '01	71½	143	May 31	13,418	3,553.178	13,582	3,599,357	399,161	379,046
Halifax	—	—			2,187	524,880	2,158	517,920	68,008	61,151
Huddersfield	Feb. '01	—	32	March 31	—	—	—	—	—	—
Hull	July '99	9·5	18·5	March 31	2,037	488,925	1,822	437,469	79,605	69,295
Ilford	Mar., '03	6·5	10·5	—	340	92,248	313	—	16,923	16,163
Ilkeston	May, '03	3·5	4	—	93	23.994	110	28,473	—	—
Leeds	Aug. '97	37	71	March 25	5,180	—	4,938	—	215,097	202,789
Liverpool	Nov. '98, June '99	66	114	Dec. 31	9,691	2,104,360	9,317	2,004,463	506,870	492.774
L.C.C.*	1897, Jan. '99	—	47¼	March 31	11.876	—	8,272	—	452,688	354.824
Manchester	June '01	72	131·50	March 31	11,400	2,343.451	10,737	2,211.044	444,785	426,041
Nelson	Mch. '02	2·75	3·5	—	102	31,633	94	27.532	4,406	3,122
Newcastle	Dec. '01	17	36	—	3,434	780,945	3,436	761,963	—	—
Oldham	Dec. '00	18	28	—	1,278	255,458	1,133	247.650	427,696	41.810
Portsmouth	Sept. '01	15	28	—	1,333	295,810	1,287	284.701	73,005	67,276
Reading	July '03	7½	13⅓	—	511	119,362	491	113,938	—	—
Rotherham	Jan. '03	7⅓	—	March 25	399	90,511	364	81.383	16,937	14,386
Salford	Oct. '01	32½	59½	March 31	3,749	719,229	3,741	—	149,658	141.781
Sheffield	Sept. '99	32½	59½	March 25	4,374	1,161,027	4,193	1,110,057	173,422	169,836
Southampton	Sept. '98	9⅜	16⅝	March 31	805	151,881	861	167,400	36,015	38,342
Southend-on-Sea	July '01	6·85	—	March 31	—	—	—	—	—	—
Sunderland	July '00	12·27	23	—	1,058	—	988	—	46,688	45,640
Wallasey	Mch. '02	9	10·5	March 31	620	118,685	572	110.382	27,766	25,993
Walsall	Jan. '04	12½	13½	Dec. 31	425	77,039	—	—	23,553	
West Ham	Feb. '04	9·78	12·98	—	1,023	300.552	—	—	38,751	—
Wolverhampton	April '02	11·258	16·848	March 31	693	150,252	355	72,742	—	—

* Also includes the horse lines.

CRIPPLED TRAMCAR SERVICES.

APPEAL FOR GREATER SPEED.

THE following letter has been addressed to the President of the Board of Trade:—

Sir,—The Council of the Tramways and Light Railways Association has instructed me to communicate to you its strong opinion that the speed limits on tramways should not be more stringent than the limit for motor-cars, and especially for motor-omnibuses, on the same road.

It desires me respectfully to point out that under Sec 9 of the Motor-Car Act, 1903, the limit for motor-cars is 20 miles an hour, unless (a) on the petition of the local authority, (b) by the order of the Local Government Board, a lower limit is enforced, and this limit can never be less than 10 miles an hour. This enactment is a recognition by the Legislature of the obvious scientific fact that a higher speed is now practicable for road traffic, with due regard to the public safety, than was heretofore supposed to be desirable, and it affords a good reason for revising all previous bye-laws fixing the limit of speed on tramways.

The tramway owners are now in many cases, and at vast expense, furnishing a wider road and smoother track for the use of competitive motor-omnibuses, which are not subject to the same limitations of speed. There is no scientific reason why, except, perhaps, on very sharp gradients, tramcars should not safely be allowed to run as fast as motors. There are, indeed, many practical reasons to the contrary—the tramway owners are always ascertainable and always responsible in case of accidents; they only run on a defined track, and that generally at a good distance from the footway; the danger of the roads is much increased by the practical necessity for motor-cars to swerve aside in order to pass tramcars creeping along within the legal limits.

My Council respectfully suggests that the Board of Trade should notify that, as a general rule, it will adopt the limit of 20 miles prescribed by the legislature in the case of motor cars, and that it propose, subject to any exceptions that may be necessary in special cases, to modify its regulations in this sense. This would leave unaffected any bye-law of local authorities prescribing less speed, but when sanctioning fresh bye-laws the Board of Trade would, it is assumed, have regard to the said considerations. The Board of Trade is of course aware that, in the case of tramways, as in the case of motor-cars, the fact that the car is running within the legal limit is no answer to a claim in case of accident. The tramway owners would still have every reason for restraining their drivers from recklessness or carelessness.

My Council believes that this matter urgently demands the attention of the Board of Trade in the interests both of the travelling public and of the private or municipal capital embarked in tramways.—I have the honour to be, sir, your obedient servant,

ERNEST BENEDICT, Secretary, the Tramways and Light Railways Association.
Clun House, Surrey Street, London, W.C.

DICK, KERR & Co., LIMITED,

ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Contractors for Municipal Lighting and Tramway Schemes.

Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

HOUSING REFORM.

ANOTHER CONFERENCE.

A LARGE meeting of delegates from metropolitan and suburban borough councils, trade societies, labour committees, and trade unions was held last week at Essex Hall, Strand, London, to discuss a series of resolutions upon the housing question, Mr. W. Steadman, L.C.C., presiding. Among those taking part in the proceedings were Dr. Macnamara, M.P., Mr. Henry Tozer, chairman of the Housing Committee, Westminster City Council; Mr. Dew, L.C.C., and Mr. Knee, secretary of the conference.

The chairman said the object of the conference was to wake up the Government to a sense of the need of legislation for the workers of this country to protect them from the rapacity of landlords, high rents, and the crowding and insanitary surroundings resulting therefrom. The English workers were as much in need of a rent court as the Irish, and required legislation on the lines of the Irish Land Act.

The first and principal resolution, which was moved by Mr. Knee, called upon the Government to provide improved financial facilities for the carrying out of municipal housing schemes by any of four methods:—(1) By empowering local authorities to issue non-interest-bearing notes; (2) by grants from the Imperial Exchequer; (3) by levying direct rates for housing purposes; (4) by a tax on site values, a portion of the funds so raised to be set aside for housing purposes.

In support of the resolution Dr. Macnamara stated what had been done by the Workmen's National Council in promoting their Housing Bill, of which he had had charge for three years. Their chief objects were to obtain loans for housing and re-housing purposes at interest not exceeding 2 per cent. and for terms extending to 100 years for repayments, to provide for re-housing prior to demolition, and to tax land values so as to secure a revenue upon which a preferential claim should be given to schemes under the Housing Acts. Considerable progress had been made, in proof of which he referred to the majority by which Sir G. Trevelyan's Bill had passed its second reading, but there was no driving power behind the housing question in Parliament. Instead of being forced on by a powerful organisation, the subject seemed to be regarded by most of those friendly to housing schemes with a sort of amiable helplessness tinged by cynical indifference.

The hon. member quoted some remarkable figures from the report of the committee considering the question of the alleged physical deterioration of the nation. In Hampstead the expectation of life of a person aged 10 had an actuarial value of 53 years, but in Southwark the same life had only the value of 45 years. At the age of 40 the expectation of life was in Hampstead 27 years, in Southwark only 21 years. The reason was that in Hampstead the population was only 34 persons to the acre, but in Southwark 212. The respective annual death rates were 14·4 and 30·6 per 1,000. The recent revelation of the waste of public money during the war in South Africa proved that plenty of public money ought to be available for housing the working classes. The speaker suggested the withdrawal of the third of the methods mentioned in the resolution. To levy a direct rate for housing schemes would tend to make them unpopular.

Mr. Henry Tozer, as an amendment, proposed to omit Clause 3 from the resolution, and Mr. Ross (Woolwich) having seconded, a long discussion followed, in which the delegates were about equally divided for and against the proposal to levy a special rate. At length, on a division, the numbers were declared to be, for the omission of the clause, 162, against 160. Other resolutions were carried condemning the reckless and irresponsible demolition of houses occupied by workers, and urging the organisation of improved means of transit and locomotion for London, by the construction of new main roads and of light and other railways for the metropolitan and surrounding districts.

AN ALL-NIGHT SITTING.

BRADFORD CITY COUNCIL TIRED.

THE exact time occupied by the last meeting of the Bradford City Council was 11 hours and 35 minutes. The members met at three o'clock on Tuesday, and did not rise until 2.35 on Wednesday morning. The previous record sitting was created not long ago, but it was only of five hours and 40 minutes' duration, so that the meeting of Tuesday more than doubled the previous longest meeting.

Over an hour was taken up in discussing the proposal to remove the sludge from the dam at Frizinghall, and had the mayor not put his foot down in relation to the discussion of the report of the electrical engineer on a recent explosion in Forster Square, it would have been a case of more than "round the clock," instead of half an hour short of it.

At exceptional sittings such as this, one expects not a little excitement, but, as the Mayor stated at the close, there was good feeling for the most part, after the question of feeding the children had been got out of the way. When it got to be about 11 o'clock many of the members entered into the "sport of the thing," and thus it came about that the Mayor had to appeal for a more serious spirit.

MR. EDMUND PEARSE, inspector of the Local Government Board, held an inquiry at Dartmouth on Wednesday into an application of the Town Council for a Provisional Order under Sec. 303 of the Public Health Act, 1875, to enable the Corporation to provide a new Market House, Town Hall, and municipal offices; to borrow money for the purpose; and to employ Corporate funds in part payment of the cost of the works; to alter the tolls authorised by the existing local Act to be taken in respect of the market, and, if advisable, to levy other tolls.

YŌST

THE TYPEWRITER FOR BEAUTIFUL WORK.

NO RIBBON.
NO COMPLICATIONS.
NO SHIFT-KEY.

85 CHARACTERS.
LIGHT TOUCH.
NOISELESS.

ASK FOR "MUNICIPAL" BOOKLET, POST FREE.

THE YOST TYPEWRITER CO., LTD.,
50, HOLBORN VIADUCT, LONDON, E.C.

Important to Municipal Authorities.

THE
SMETHURST FURNACE
AND
ORE TREATMENT

Specially adapted for CARBONATING and PURIFYING FOUL EFFLUENT LIQUORS from Works and SEWAGE Evaporation.

EVAPORATING & MELTING PLANTS.

The SMETHURST FURNACE and ORE TREATMENT SYNDICATE, Ltd.,

3, GREAT WINCHESTER STREET,
LONDON, E.C.

Appointments Vacant.

Latest date for applications in parentheses.

Assistant Clerk to Asylum. £120. W. G. Austin, Guildhall, Westminster, S.W. (December 20.)

Assistant Master. £50. J. H. Ford, Poor Law Offices, Leeds. (December 27.)

Children's Caretaker. £24. M. Sharman, Clerk to Guardians, Bedford. (December 17.)

Clerkships—Fourth Class. Examinations on January 16, 17, and 30th. Applications by 11th and 16th January respectively. Clerk of London County Council. Spring Gardens, S.W. See advt. in No. 619.

Clerk of Works. £3 per week. T. H. Moon, Education Offices, Soho Hill, Handsworth. (December 19.)

Clerk of Works. £3 per week. E. Montagu Bate, Council Offices, Frinton-on-Sea, Essex. (December 22.)

Clerk of Works. E. Knightley, Clerk of District Council, Newhaven. (January 4, 1905.)

Cook—Assistant Female. £18. J. R. Browne, Guardians' Offices, Raine Street, Old Gravel Lane, E. (December 20.)

Deputy Town Clerk. £500. F. Stevens, Town Clerk, Town Hall, Bradford. (December 21.) See advt. in this issue.

District Foreman. 37s. 6d. per week. Vivian Orchard, Town Clerk, Tanner's Hill, Deptford. (December 19.) See advt. in No. 619.

Electrical Engineer. £400. S. Southall, Town Clerk, Guildhall, Worcester. (December 19.)

Engineer to take charge of gas engines. Also Second Man and Youth as cleaner. Frank Baker, Borough Engineer, Middlesbrough. (December 29.)

Engineer (Electrical, &c.). £2 2s. per week. City Engineer, Guildhall, York. (December 23.)

Farm Bailiff (Working). 30s. per week. T. Duncombe Mann, Asylums Board, Embankment, London, E.C. (December 20.)

Inspector of Food. £120. E. V. Hiley, Town Clerk, Town Hall, Leicester. (December 24.) See advt. in No 619.

Inspector of Nuisances, &c. (Assistant). W. B. Pindar, Clerk to District Council, Hunslet, Leeds. (December 24.)

Inspector of Nuisances and Surveyor. £150. A. W. Freeman, Clerk to District Council, Maldon, Essex. (December 21.)

Inspector (Weights and Measures). £120. H. Hankinson, Town Clerk, Guildhall, Northampton. (December 20.) See advt. in this issue.

Instructors and Assistant Instructors in Manual Training. £100 and £80 respectively. Clerk of London County Council, Education Offices, Victoria Embankment, London, W.C. (January 4.)

Local Secretary. £200. J. H. Nicholas, Secretary to Education Committee, County Offices, Chelmsford. (December 22.)

Manager of Sewage Works. £150. W. H. Talbot, Town Clerk, Town Hall, Manchester. (December 19.)

Nurse (Assistant). F. G. Beeching, Clerk to Managers, West London Schools, Ashford, Middlesex. (December 22.)

Officers—Cook, £38; Wardsman, £30; General Officer, £30; Day Gate Porter, £30; Night Porter, 28s. per week. F. W. Piper, Union Offices, St. John's Hill, Wandsworth. (December 21.)

Porter and Portress (Married Couple). £30 and £15. W. W. Duffield, 96, High Street, Chelmsford. (December 31.)

Relieving Officer, Collector, &c. £120 and 5 per cent. commission. C. Taylor, Clerk to Guardians, Minster, near Ramsgate. (January 5.)

Relieving Officer (Superintendent). £200. W. R. Stephens, Guardians' Offices, Marloes Road, Kensington. (December 31.)

Relieving Officer (Assistant). £80. E. Pitts Fenton, Guardians' Offices, 283, Tooley Street, S.E. (December 29.)

Relieving Officer. £130. G. Muncaster Howard, Poor Law Offices, Nottingham. (December 21.)

Sanitary Inspector. £120. J. A. Johnson, Town Clerk, Town Hall, Walworth Road, S.E. (January 2, 1905.) See advt. in this issue.

Secretary (Association of Poor Law Unions). £150. H. E. Lawrence, 47, Essex Street, Strand, W.C. (December 31.)

Storekeeper. £22. F. Gregson, Clerk to Guardians, Rochford Union, Southend-on-Sea. (December 19.)

Sub-Librarian. £100. E. Wright. Town Clerk, Lewisham Town Hall, Catford, S.E. (January 4.) See advt. in this issue.

Surveyor's General Assistant. £110. R. M. Prescott, Town Clerk, Town Hall, Fulham. (December 27.) See advt. in this issue.

Surveyor, Inspector of Nuisances, &c. £90. F. J. Simpson, Deputy Town Clerk, Higham Ferrers. (December 19.)

Surveyor. £120. T. H. Cornish, Clerk to District Council, West Penwith, Cornwall. (December 27.)

Surveyor—Assistant Road. £80. W. Coxwell, Clerk to District Council, Totton, near Southampton. (December 23.)

Surveyor, &c.—Assistant. £65. C. P. Lovelock, District Council Office, Carshalton. (December 28.)

Tramways — General Manager. £700. Hill Motum, Town Clerk, Town Hall, Newcastle-on-Tyne. (January 7.) See advt. in this issue.

Ward Sister. £35. Geo. M. Crowther, 22, Manor Row, Bradford. (December 20.)

Water Inspector. T. J. Sworder, Town Clerk, Hertford. (December 31.)

Tenders Wanted.

Latest date for sending in tenders in parentheses.

Building Alterations and Additions. T. W. Liddiard, Education Offices, High Street, Walthamstow. (January 9.)

Building Cottages and Bathrooms. F. Stevens, Clerk to District Council, Beckenham. (December 19.)

Clothing—Police. W. Thornton, Chief Constable, Town Hall, Gravesend. (December 20.)

Clothing—Police. A. G. Young, Town Clerk, Council Chambers, Ayr. (December 19.)

Concrete Flooring, Engine Sheds, &c., at Sewage Works. E. Crowne, 712, High Road, Tottenham. (January 3.)

Conversion of School into a Home — Plans invited. W. Thurnall, Clerk to Guardians, Brook Street, Kennington Road, S.E. (December 20.)

Destructors. Fred. J. Allan, Cleansing Committee's Offices, 3, Cork Hill, Dublin. (December 20.)

Electrical—Steam Dynamo. R. Hilton, Town Clerk, Town Hall, Swindon. (December 20.)

Electrical—3,000 Volt Steam Alternator. R. M. Prescott, Town Clerk, Town Hall, Fulham. (December 20.)

Electrical—Transformers, Pillars and Switchgear, and Overhead Travelling Cranes, for Johannesburg Municipality. Mordey and Dawbarn, 82, Victoria Street, Westminster, S.W. (December 27.)

Electrical—High-Tension Switchgear. W. H. Hickson, Town Clerk, Town Hall, Rochdale. (December 27.)

Electrical—Power Station Plant. J. L. Wheatley, Town Clerk, Town Hall, Cardiff. (December 19.)

Electricity Department — Wooden Cooling Towers. F. M. Bowey, Town Clerk, Town Hall, Sunderland. (December 30.) See advt. in this issue.

Electric Motor Equipment. J. G. Monro, Town Clerk, City Chambers, Glasgow. (December 22.)

Electrical Plant for Sale. W. H. Talbot, Town Clerk, Town Hall, Manchester. (December 21.)

Electrical Plant for Sale. A. E. Matthewman, Town Clerk, Town Hall, Bridlington. (December 21.)

Electrical Plant. W. H. Snow, Town Clerk, Southend-on-Sea. (December 21.)

Electric Tramways (Shanghai). Messrs. Pook and Co., 63, Leadenhall Street, E.C. (March 31, 1905.)

Fencing. F. Robey, Council Offices, Hindley. (December 19.)

Footbridge, Subway, &c. Chairman, Works Committee, Town Hall, Hull. (December 23.)

Heating Public Library. J. B Connolly, Public Library Committee, Drogheda. (December 31.)

Heating, Ventilating, and Hot Water Plant. R. W. Partridge, Asylum Committee Office, 6, Waterloo Place, S.W. (January 23.)

Lead Pipes, &c. City Engineer, Guildhall, Worcester. (December 21.)

Libraries—Competitive Designs invited. Chief Librarian, Public Library, Royal Avenue, Belfast. (January 17.)

Loans of £50 and Upwards. Haswell Brown, Borough Accountant, Town Hall, Sunderland. See advt. in this issue.

Loans for Waterworks, &c. J. Taylor, Clerk to Urban District Council, Buxton. (December 20.)

Meat and Flour. George Purvey, Clerk of County Asylums, Haywards Heath. (December 28.)

Meters—Dry. J. Milliken, Town Clerk, Bangor, Ireland. (December 20.)

Oil-Engines. T. J. Sworder, Welwyn District Council Offices, Hertford. (December 19.)

Pumping Machinery, &c. Competitive Designs and Tenders. J. L. Wheatley, Town Clerk, Town Hall, Cardiff. (December 21.)

Pumping Main. E. Crowne, 712, High Road, Tottenham. (January 3.)

Road Materials. C. H. Mounsey, County Surveyor, Carmarthen. (December 28.)

Road Material and Cartage. W. McIntosh, County Surveyor, Worthing Road, Horsham. (December 31.)

Road Works. W. Bagshaw, Clerk to District Council, Wembley. (December 20.)

Road Works.—Stanley W. Ball, Public Offices, Dyne Road, Kilburn. (December 20.)

Road Works.—R. M. Prescott, Town Clerk, Town Hall, Fulham. (December 21.)

Sanitary Towers. John Carter, Poor Law Offices, Birkenhead. (December 19.)

School Buildings—Remodelling. Competitive Designs invited. J. W. Watkins, Education Office, Llanelly. (January 31.)

Sewage Disposal Works. A. Challinor, Town Clerk, Town Hall, Hanley. (December 30.)

Sewer Works. T. E. Pearson, Town Hall, Settle. (December 19.)

Sewer Construction, &c. G. D. Byfield, 16, High Street, Barnet, Herts. (December 21.)

Sewer Construction. Henry T. Weyman, Clerk to Wigmore District Council, Ludlow. (December 31.)

Sewerage Works. J. E. Alcock, Clerk to Urban District Council, Mansfield, Notts. (January 2.)

Sewer Works. A. Blasdale Clarke, Town Clerk, Bacup. (December 21.)

Sewerage Works. E. McIlquhoun, Essex Place, Cheltenham. (December 20.)

Sewerage and Sewage Disposal. H. J. Bracher, Clerk to District Council, 33, Earl Street, Maidstone. (December 21.)

Slaughterhouses. Borough Engineer, Dartmouth. (December 24.)

Stables, &c. Borough Surveyor, Town Hall, Catford, S.E. (December 28.)

Street Improvements. Clair J. Grece, Town Clerk, Reigate. (December 20.)

Street Improvements.—R. Brown, Public Offices, Southall. (January 10.)

Street and Sewer Work. G. D. Byfield, 16, High Street, Barnet. (December 21.)

Street Works W. F. Payne, Town Hall, Lower Edmonton. (December 19.)

Street Works. W. H. Snow, Town Clerk, Southend-on-Sea. (December 22.)

Tea. F. J. Tootell, Clerk to Guardians, Union Offices, Vallance Road, Whitechapel, E. (December 28.) See advt. in this issue.

Team Labour. M. C. Warne, Surveyor to District Council, Barming, Maidstone. (December 21.)

Tramways — Motor-Cars, Trucks, Motors, &c. C. H. Fry, District Council Officer, Erith. (December 19.)

Underground Conveniences. J. A. Johnson, Town Clerk, Town Hall, Walworth Road, S.E. (December 21.)

TO CONTRACTORS.

IT WILL PAY YOU
to Subscribe to

THE MUNICIPAL JOURNAL.

6/6 per year, post free.

Office: 12, SALISBURY SQUARE, LONDON, E.C.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS.
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

PARLIAMENTARY PLANS.
ROBT. J. COOK & HAMMOND,
Lithographers, Tothill Street,
Westminster. (Est. 1860.)

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

ROAD SCAVENGER.
F. COWLEY, C.E.,
Launceston, Cornwall.

SANITARY POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

**** *For conditions of insertion in this column address The Manager,* MUNICIPAL JOURNAL, *12, Salisbury Square.*

BIRKBECK BANK
ESTABLISHED 1851.

2½ per cent. INTEREST
allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST
allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.
STOCKS & SHARES BOUGHT & SOLD.
Apply C. F. RAVENSCROFT, Secretary,
Southampton Buildings, High Holborn, W.C.

TEMPERANCE PERMANENT
BUILDING SOCIETY,
4, Ludgate Hill, London, E.C.

A Safe Four Per Cent. Investment.
Free from fluctuations, and without deduction of Income Tax.

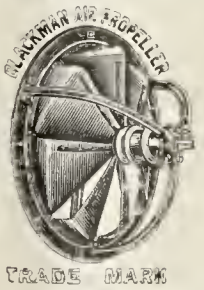
CAPITAL AVAILABLE WITHOUT DEPRECIATION
without expense and at short notice when required.

DEPOSITS RECEIVED AT THREE PER CENT.

LARGEST RESERVE
of any Building Society in the United Kingdom.
EDWARD WOOD, Manager.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.
Surrey House, Victoria Embankment.
LONDON, W.C.
Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.
BONDS are also issued on Behalf of INLAND REVENUE COLLECTORS.
REDUCED PREMIUMS from 3s. per cent.
Bonds approved under Seal of Local Government Board and Inland Revenue Department.
Proposal forms and full particulars on application to the Secretary SHIRLEY FUSSELL.

BLACKMAN


ELECTRIC FANS.
GOLD MEDAL
PARIS, 1900.
JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

TO CONTRACTORS.
To KEEP YOUR NAMES before the Officials and Members of Local Authorities
YOU CANNOT DO BETTER
than insert a running Advertisement in
The MUNICIPAL JOURNAL
ITS CIRCULATION
IS FAR IN EXCESS
OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.
For rates, address—MANAGER, MUNICIPAL JOURNAL, 12, SALISBURY SQUARE, LONDON.

WILLIAMSON
ASHTON-UNDER-LYNE,
Telephone 320.

FOR TICKETS AND PUNCHES FOR TRAMWAYS, &c.
TICKET NIPPERS.
TICKETS, DATING MACHINES, AND ISSUING CASES
FOR RAILWAYS, BATHS, &c.

THE CHEAPEST & BEST LIGHT

For Public Lamps, either in Main or Secondary Thoroughfares;
For Churches, Halls, Market Places, and other Public Buildings;
For Shops, Factories, and Private Houses

CAN BE OBTAINED BY THE USE OF

INCANDESCENT GAS BURNERS

"The finest streets in the great cities of Europe are now lighted with Incandescent Gas Burners, and if the high-pressure Incandescent Lamps be compared with the Electric Arc Lamps at some of the busy street crossings in London, there can be no question of the great superiority of the Incandescent Gas system. . . . As a source of lighting power, Gas is certainly cheaper than the Electric Light."—*The Lancet*, 26th November, 1904.

Those Who Study
Their Own Pockets
Those Who Study
the Ratepayers' Pockets

Use **GAS** for
LIGHTING, HEATING, COOKING,
and POWER PURPOSES.

Full Particulars and Estimates respecting the Installations of Gas Apparatus for Public Lighting and all other purposes can be obtained from

The GAS LIGHT & COKE COMPANY,
HORSEFERRY ROAD, WESTMINSTER, S.W.

NO MORE FIRES from electric wires. IMPORTANT to MUNICIPAL AUTHORITIES.

IMPROVED ELECTRIC WIRING

The only SAFE SYSTEM. ABSOLUTELY PREVENTS all DANGERS arising from the Fusing of Wires.
FIRES from this SYSTEM have NEVER OCCURRED.

In Use at Car Sheds of British Tramways, Portsmouth Tramways, London United Tramways, Dublin Tramways, and Municipal Buildings at Glasgow, Newport, Cardiff, Brighton, &c.

Manufacturers: CONDUIT & INSULATION COMPANY, Limited,

Telegrams: "Koming, London." RIVERSIDE ROAD, SUMMERS TOWN, S.W. Telephone: 11, Wimbledon.

The Best Municipal Work of Reference.

FOR ACCURATE, UP-TO-DATE INFORMATION ON MUNICIPAL SUBJECTS AND

STATISTICS AND RESULTS OF MUNICIPAL MANAGEMENT

THE BEST WORK TO CONSULT IS

THE MUNICIPAL YEAR BOOK

Price 3s. 6d. Post free 3s. 11d.

LONDON: EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, FLEET STREET, E.C.

Printed and Published by EDWARD LLOYD, Limited, 12, Salisbury Square, London, E.C.

MUNS 51

THE MUNICIPAL JOURNAL

No. 621.—Vol. XIII. FRIDAY, DEC. 23, 1904. REGISTERED AT THE G.P.O. AS A NEWSPAPER. One Penny.

Official Advertisements.

ST. PANCRAS BOROUGH COUNCIL.

TO MAKERS AND SUPPLIERS OF GYMNASTIC APPLIANCES.

THE Council of the Metropolitan Borough of St. Pancras invite TENDERS for the Supply and Fixing of GYMNASTIC APPARATUS required at the Public Baths, Prince of Wales Road, N.W.

A schedule of apparatus and other particulars will be supplied on application.

Tenders must be delivered here in envelopes, endorsed "Tenders for Baths Gymnastic Apparatus," not latter than 12 o'clock noon on Monday, the 2nd January, 1905.

The Council do not bind themselves to accept the lowest or any tender.

C. H. F. BARRETT,
Town Clerk.

Town Hall,
Pancras Road, N.W.
16th December, 1904.

COUNTY COUNCIL OF MIDDLESEX.

NAPSBURY ASYLUM, ST. ALBANS, HERTS.

THE Visiting Committee of the above Asylum invite TENDERS for the SUPPLY of CHINA, EARTHENWARE, and GLASS, required for 1,150 patients, and Officers of the above Asylum.

Firms or persons desirous of tendering for the above articles are requested to send in their names to the Clerk of the Asylum, Napsbury, St. Albans, Herts, on or before the 30th December instant, when a form of tender and conditions of contract will be forwarded.

Samples of the articles required can be inspected at the Asylum.

WALTER GEO. AUSTIN,
Clerk of the Visiting Committee.
Guildhall, Westminster, S.W.
19th December, 1904.

HEXHAM URBAN DISTRICT COUNCIL.

TENDER FOR LOAN.

THE above Council invite TENDERS for a LOAN of £4,280, for the purposes of their Water Undertaking, under the Hexham Local Board (Water) Act, 1888, as amended by the Hexham Orders, 1896 and 1903.

The loan will be repaid over a period of 30 years by half-yearly instalments of principal, with interest on the balance from time to time remaining due, or by equal half-yearly instalments of principal and interest combined, as may be arranged.

Tenders, stating interest required, and inclusive terms, to be sent to the undersigned by Saturday, January 7th, 1905.

W. PRUDDAH,
Clerk to the Council.
Town Hall Chambers, Hexham.
20th December, 1904.

Official Advertisements.

PARISH OF WILLESDEN.

GENERAL ASSISTANT RELIEVING OFFICER.

THE Guardians of this Parish invite applications for the appointment of a GENERAL ASSISTANT RELIEVING OFFICER.

The person appointed will be required to remove the lunatics throughout the parish, and to generally assist the relieving officers in the discharge of their duties.

Salary £80 per annum.

The appointment will be subject to the provisions of the Poor Law Officers' Superannuation Act, and subject to the sanction of the Local Government Board.

Forms of application may be obtained by sending a stamped addressed foolscap envelope to my office as below, and must be returned to me not later than Tuesday, the 3rd of January, 1905.

By order.

J. HUTTON HAYLOR,
Clerk to the Guardians.
Guardians' Offices,
329, High Road,
Kilburn, N.W.
23rd December, 1904.

PARISH OF WILLESDEN.

FEMALE ATTENDANT FOR INFIRMARY.

THE Guardians of Willesden Parish invite Applications for the Appointment of a FEMALE ATTENDANT on the old and infirm inmates at the Workhouse Infirmary, Acton Lane, Willesden.

Applicants, who must have had experience in similar work, must be single, or widows without encumbrance, and between the ages of 30 and 40 years.

Salary £26 per annum, with rations, washing, uniform, and apartments.

No beer will be allowed, nor any amount in lieu thereof.

The appointment will be subject to the provisions of the Poor Law Officers' Superannuation Act.

Forms of application may be obtained by sending a stamped addressed foolscap envelope to my offices as below, and must be returned to me not later than Tuesday, the 3rd day of January, 1905.

By order.

J. HUTTON HAYLOR,
Clerk to the Guardians.
Guardians' Offices,
329, High Road.
Kilburn, N.W.
23rd December, 1904.

COUNTY BOROUGH OF SUNDERLAND

THE Corporation are prepared to receive LOANS of £50 and upwards on security of the Rates of the Borough, at six months' notice or for a fixed period.

For further particulars apply to Haswell Brown, Borough Accountant, Town Hall.

Sunderland.
13th December, 1904.

In replying to Official Advertisements, please mention the "Municipal Journal.

Official Advertisements

METROPOLITAN BOROUGH OF ISLINGTON.

CLERKSHIP.

WANTED, in the Town Clerk's Office, a good SHORTHAND CLERK, not under 20 years of age. One accustomed to typing correspondence, and with experience in a Municipal Office preferred. Commencing salary £71 per annum.

The person appointed will be required to undergo a Medical Examination as to his constitutional fitness for the position.

Applications, in own handwriting, with copies of not more than three testimonials of recent date, endorsed "Clerkship," must be received by the undersigned not later than Thursday, the 5th January, 1905. Candidates selected to be seen will be communicated with.

WM. F. DEWEY,
Town Clerk.
Town Hall, Upper Street, N.
21st December, 1904.

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

APPOINTMENT OF GENERAL MANAGER OF TRAMWAYS.

THE Tramways Committee of the Corporation of Newcastle-upon-Tyne are prepared to receive Applications for the Appointment of a GENERAL MANAGER, to undertake the complete control and management of the working of the New Electric Tramways. The gentleman appointed will be required to devote the whole of his time to the duties of the office, and not to undertake or engage in any other employment. Salary £700 per annum, with increases of £50 per annum for two years.

Candidates for the appointment are requested to send their applications, stating their age, qualifications, experience, and the date they could enter upon the appointment, and enclosing copies of not exceeding three testimonials of recent date (which will not be returned), addressed "Chairman of Tramways Committee, Committee Clerk's Office, Town Hall, Newcastle-upon-Tyne," and endorsed "Appointment of General Manager of Tramways," not later than 7th January, 1905.

Canvassing will be considered a disqualification.

HILL MOTUM,
Town Clerk.
Town Hall,
Newcastle-upon-Tyne.
10th December, 1904.

PROMOTION impossible without good Penmanship. Rapid tuition. Particulars for stamp. N. Broadbent (Prizeman and Medallist), Alston's College, Burnley.

(Official Adverts. continued on page 1030).

WILL JENKINS

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

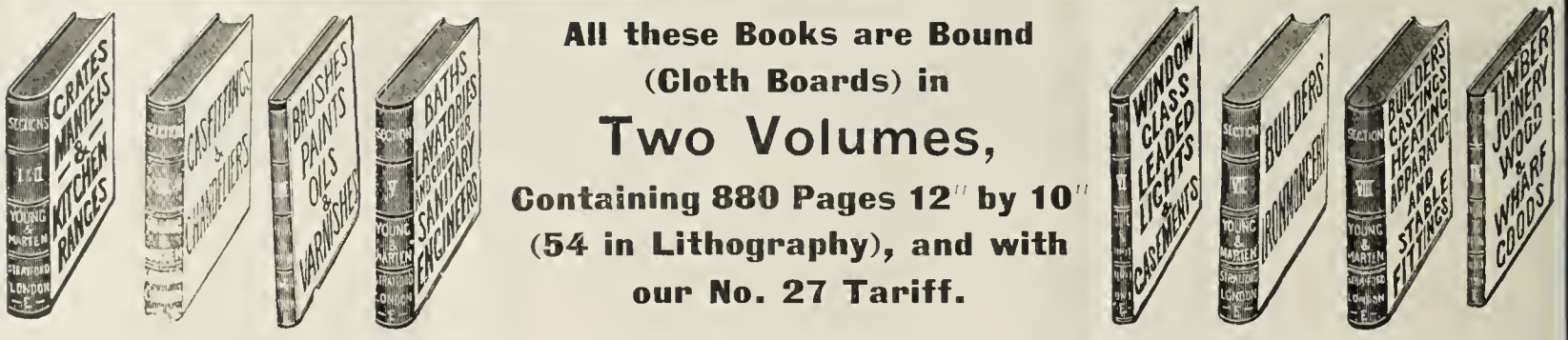
Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."



All these Books are Bound (Cloth Boards) in

Two Volumes,

Containing 880 Pages 12" by 10" (54 in Lithography), and with our No. 27 Tariff.

Form one of the most Practical Up-to-date Guides to Purchasers of all kinds of Builders' and Sanitary Engineers' Goods yet issued.

We will send them

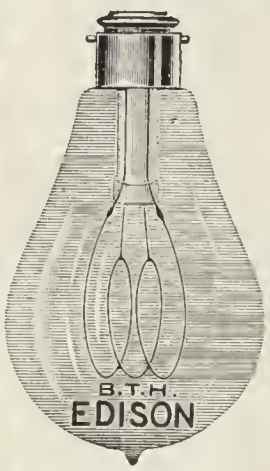
Carriage Paid,

to ARCHITECTS, ENGINEERS, and SURVEYORS upon receipt of bona-fide applications.

Please mention this Journal when applying.

YOUNG & MARTEN, LTD.

CALEDONIAN WORKS. STRATFORD, LONDON, ENGLAND.



MADE IN RUGBY.

TRUISM No. 1.

"Fronti Nulla Fides."

i.e.—There is no trusting to appearances.

When buying Electric Lamps this expression should be carefully borne in mind. Lamps may appear very much alike, but this sameness is confined to LOOKS, and does not apply to QUALITY. Make sure, therefore, that your Lamps are marked

B.T.H. EDISON,

which will always be found to be of the highest standard of excellence.

Obtainable from all principal Electricians, Ironmongers, Stores, &c.

Manufactured by the B.T.H. CO., Ltd., RUGBY.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

IN PREPARATION,

The MUNICIPAL YEAR BOOK, 1905.

OFFICIALLY REVISED—IMPROVED AND EXTENDED.

INVALUABLE TO COUNCILLORS & OFFICIALS.

EDWARD LLOYD, Limited, 12, SALISBURY SQUARE, LONDON, E.C.

BAKER'S

PATENT REFUSE DESTRUCTORS

Important New Features in Sanitation. Complete Destruction of Gases.
Highest Efficiency for Heat and Power.
Large Storage Capacity. Mechanical Conveyance and Cooling of Clinker.
Abolition of Nuisance. Special Treatment of Dead Animals and Offal.
Labour and Cost of Working Reduced to a Minimum.

JOSEPH BAKER and SONS, Limited,

ENGINEERS,

WILLESDEN JUNCTION, LONDON, N.W.

REGISTERED OFFICES—
58, CITY ROAD, LONDON, E.C.

BRANCHES { 345, Flinders Lane, Melbourne, Australia.
92, Alfred Street, Brantford, Canada.

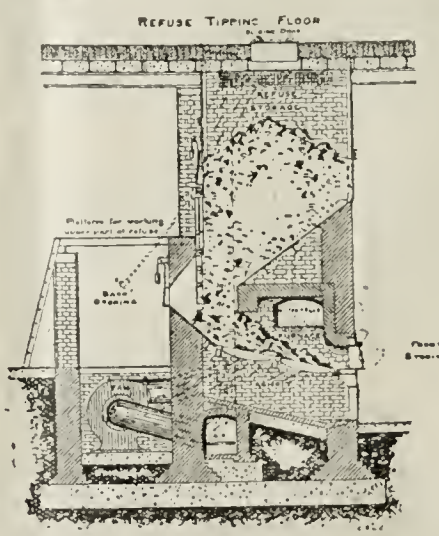


ILLUSTRATION of BAKER'S PATENT DESTRUCTOR.
With Enlarged Storage Drying Hopper.

THE MUNICIPAL JOURNAL
ESTABLISHED AS "LONDON." TWELFTH YEAR OF ISSUE.

No. 621.—Vol. XIII. DECEMBER 23, 1904.

STATE CHILDREN'S HOMES.

The New and Enlarged Bristol Union has just Completed a Very Thorough and Varied System of Dealing with Its Children. Combination of Boarding-Out, Cottage Groups, Scattered Homes, Service Homes, &c.

SUCH giant strides have the guardians for the city and county of Bristol made within the last few years in the treatment of Poor Law children that to-day it is second to no other union in England in the matter.

The erection, and the occupation within the last few weeks, of a group of homes marks the completion of a scheme for the treatment of children which was adopted by the guardians, after careful consideration, soon after the formation in 1898 of the enlarged union.

At that date Cimmerian darkness filled the minds of the guardians as to the treatment of the children, and they were left—over 500 of them of various ages—except a limited number in institutions and certified schools, in three gloomy workhouses, not even going outside to receive their education.

The guardians began to think, and at once realised that, apart from the undesirability and expense of retaining them in the three establishments, the policy, now happily everywhere gaining ground, of separating them from all connection with the workhouse ought to be followed. A committee was appointed to obtain fuller information, and make personal investigation into the various systems of scattered homes, grouped cottage homes, &c., established in a few large unions.

The principles urged upon the guardians for adoption were somewhat unique. It was argued that the number of children for whom the guardians were responsible was so large that it would not be desirable to adopt any one method, however good, or the whole, but that each child should, as far as practicable, be dealt with on the system or in the class of home or institution which appeared, after a reasonable period of observation in the Receiving or Probationary Home, to be likely to be most beneficial. The various Homes erected and now completed are as follows:—

Headquarters or receiving homes for	24 children
with homes attached for children temporarily chargeable, and "ins and outs," &c.	36 children
Scattered homes (16) in various districts of Bristol for about	200 children
Cottage homes group in country for about	150 children
A convalescent home, or homes for sickly and delicate and convalescent cases	50 children

GROUP OF COTTAGE HOMES.

Sick children were to be treated in infirmary wards wherever the latter were provided, and the making of special provision for imbecile and idiot children, children remanded by justices, &c., was deferred, but is now under further consideration.

The guardians favour the boarding-out system, and practically all children eligible have been boarded out, either in homes outside Bristol under the ten boarding-out committees which have entered into agreements with the guardians, or in homes within the union under the Clifton Boarding-out Committee. The total number now so boarded out is 118. In addition, a large number of children, viz., 16 boys and 75

THE HALL.

girls, needing, from physical or other causes, special treatment, have been placed in institutions not under the control of the guardians, or in industrial and other homes certified by the Local Government Board.

How keenly the guardians have the interests of the children at heart is shown by the fact that they have overcome the absurd prejudice against giving children a new start in life in a new country and away from the contaminating influence of undesirable relations and "friends." Annually they have availed themselves of the facilities afforded by emigration for placing out special cases of orphan and deserted children, and through the agency of the Bristol Emigration Society have sent 121 children—96 boys and 25 girls—to homes in Canada in the last six years.

The guardians have also very largely exercised the power of assuming control of children of worthless parents under the Poor Law Acts, 1889 and 1899, the number so adopted being no less than 394, many of whom are still chargeable, while others have been placed out in service or returned to their parents and relatives.

This record of six years' work for the children probably stands unique in the history of English Poor Law administration.

A brief description of the various homes should be of interest to guardians contemplating any new step for the treatment of their children. The group of headquarters (receiving and "ins and outs" homes) consists of three blocks :—

(1) A receiving home for 12 boys and 12 girls, to which every child over four years of age, on becoming chargeable, is sent direct, when the parent or parents (if any) are admitted to one of the workhouses. Each child is cleansed and clothed here, and remains under medical and other observation for a period of probation, 10 to 14 days, or longer if necessary. A store is provided for each child's own clothing.

(2) A block for 36 children (18 boys and 18 girls) temporarily chargeable ("ins and outs"), and children requiring continual observation and special supervision, and not suitable for the permanent homes.

(3) A block, containing the residence of the superintendent and matron of all the homes for children, with offices, stores, laundry (not yet completed), &c

The 16 scattered homes, which accommodate 198 children, have been established in four groups, each group consisting of two blocks of semi-detached houses in different streets or roads, this plan being regarded as preferable, because it enables the guardians to provide a means of fire-escape, regarded by the Local Government Board as essential, in the form of an iron communicating door between each two houses on the upper floors, which door can also be utilised in case of sudden illness of a foster-mother or other emergency, the mother in the adjoining home being thus enabled to give some oversight pending proper supervision being provided. The children in each of these homes attend the public elementary schools and churches near their respective homes, and join in all other organisations (Bands of Hope, &c.) available. They are, as a whole, extremely well-spoken of by day and Sunday School teachers and others, and associate freely with all in the neighbourhood of the homes, and in games, &c.

The houses are in all cases held by the guardians under leases or annual tenancies, at rents ranging from £23 to £28 per annum, and are used by two classes of children—those (1) likely to remain permanently chargeable, and (2) with no relations or friends likely to influence them injuriously, or improperly interfere with them.

If we might venture one word of criticism of so excellent a system, it would be that two of the homes, at least, each containing fifteen girls, are somewhat large. Sheffield, the pioneer of the scattered Homes system, made this very mistake, and has had since to go back upon its work. The other homes, however, each contain twelve children, which number must be considered quite large enough.

The cottage homes group opened the other day by Mr. Walter Long as a completion of the entire scheme, comprises a lodge at the entrance, seven blocks of semi-detached (14) houses, a convalescent home for sickly and delicate children, and a small hall for general purposes, school when necessary, &c. Each of the semi-detached houses accommodates 12 children, and the total accommodation (not including 36 beds in the convalescent home) is for 168 children, principally younger ones and those needing closer supervision than can be given in the scattered homes.

THE CONVALESCENT HOMES.

The economic soundness of the *raison d'être* of what are called the Service Boys' Homes, attached to these homes, will very probably be questioned. They are available for boys sent to first situations, where the wages are insufficient to enable them to provide board and lodging. A proportion of the lads' wages is applied to their maintenance, and the remainder expended on clothing or banked.

The Local Government Board in sanctioning this arrangement required that its use should be restricted to lads under the control of the guardians by virtue of the Poor Law Acts 1889 and 1899.

"MERSEY CITY."

A Conference is to Take Place Between the Liverpool, Birkenhead, Bootle, and Other Authorities Concerning the Proposed Federation Scheme. A Memorandum from the Town Clerk of Liverpool Demonstrates the Desirability of Federation, and Indicates Methods by Which it May be Effected.

THE Parliamentary Committee of the Liverpool City Council on Tuesday considered the proposal for the federation of the Mersey boroughs and adjoining districts.

On the motion of the chairman (Alderman Burgess), seconded by the deputy-chairman (Alderman Williams), the following resolution was passed:—

> This Committee, being of opinion that it might be to the mutual advantage of the city of Liverpool and the boroughs of Bootle and Birkenhead and the adjacent districts if they could be federated for local government purposes, recommend the Council to authorise this Committee to confer with the councils of such boroughs and districts with the view of ascertaining whether they would be willing to co-operate in formulating a scheme for the purpose, and report the result to the Council.

Thus the first practical step towards the new "Mersey city" has been taken. How desirable federation is, and how beneficial the effects of such a scheme would be to the districts concerned, is explained iu a memorandum which has been prepared on the subject by the town clerk of Liverpool (Mr. Edward R. Pickmere), which we are able to publish this week. It must be distinctly understood, however, that the scheme contained in the memorandum has not yet been endorsed bv the Liverpool Parliamentary Committee. The memorandum is as follows :—

The city of Liverpool and the adjoining boroughs and urban districts now contain a population of nearly 1,000,000 persons, located as follows:—

Liverpool, with Fazakerley	...726,930 (1904 estimate)
Birkenhead	...113,000 (1903 estimate)
Wallasey	... 53,579 (1901 census)
Bootle	... 60.800 (1903 estimate)
Waterloo, Seaforth, Litherland, Orrell, Great Crosby, and Little Crosby	... *45.312 (1901 census)
Total	... 999,621

* Except Orrell, which is estimated.

A Community of Interest.

This large population is so knit together by a common interest that it practically forms one community.

Wallasey and the suburbs of Birkenhead are largely inhabited by people who obtain their livelihood in Liverpool, and if the means of communication were increased between Liverpool and the Cheshire shore, and if Bootle were connected by ferry or tunnel with the same shore, there would no doubt be a much greater number of Liverpool and Bootle business people living on the Cheshire side of the water than there is even at the present time. Again. in the case of Waterloo, Seaforth, Great Crosby and Little Crosby, a very large number of Liverpool business people reside in these districts, and they have now become residentia l parts of Liverpool. The migration of Liverpool people to the districts outside the city will increase in proportion as the erection of a small class of house proceeds on land at present largely occupied by, or adjacent to. better-class houses. This exodus of the wealthier classes from Liverpool may have, in the future, a detrimental effect npon the city, and such institutions as hospitals and charitable institutions generally, will in time undoubtedly suffer because the interests of the people will be where they live rather than where they work. The boundaries of a town are often extended to inclose within its jurisdiction such of the population as spreads into an adjoining district, but, except on the east and south sides, this is now practically impossible in the case of Liverpool, shut in as it is on the west by the river and on the north by Bootle.

For "Mutual Advantage."

Having regard to the great difficulties which are nearly always met with in attempting to extend the boundaries of a town, so as to include an adjoining local authority, it seems desirable to consider whether some arrangement could not be made whereby local government areas could be joined together for their mutnal advantage, and formed into one governing body, without entirely extinguishing the identity of each area. If such an arrangement could be carried out, the smaller outlying districts might form part of the larger areas adjoining, and the various larger areas might be federated, so that important questions affecting equally the whole community could be dealt with by one governing body, leaving to each individual district so federated the right to manage its own purely local affairs.

The Local Government Act, 1888 (Sec. 54), provides for the union of boroughs by means of a Provisional Order made by the Local Government Board, as well as for the extension of boundaries, and there would, therefore, be no diffiulty in carrying out such a scheme in connection with Liverpool and the surrounding boroughs and districts if it were done by mutual consent.

The Basis of a Scheme.

The question now arises on what basis could such a scheme be carried out.

The government of the metropolis by the London County Council and the London borough councils may be cited as an attempt in the direction indicated, but on a carefnl examination into the mode of government of the administrative County of London, and the London Borough Councils, it will be found that there is overlapping of jurisdiction in certain cases, and a good deal of friction caused thereby.

The principal matters over which the County Council has jurisdiction are as follows:—(1) Maintenance of main sewers land disposal of sewage, (2) superintendence of new buildings and laying-out of new streets, (3) schemes under Housing Acts (except Part III. transferred to Borough Councils), (4) extinguishing of fires. The Borough Councils have the maintenance of main roads existing in 1899, the enforcement of bye-laws and regulations with respect to dairies and milkshops, slaughter-houses and offensive businesses, also certain minor powers and duties in respect of such matters as the removal of obstructions in streets, unauthorised sky-signs, demolition of unsafe buildings, and power to make bye-laws under Sec. 23 of the Municipal Corporations Act, 1882.

Liverpool and Others.

The position of Liverpool with regard to the adjoining local authorities is not in any way analogous to that of the old Metropolitan Board of Works and the London Vestries, because the Board's authority extended over the combined areas of the vestries, whereas the areas of Liverpool and the adjoining local authorities are quite distinct and self-contained. There might be great difficulty in obtaining the sanction of Parliament to a large county council area being created containing a city and a number of boroughs and other districts. There does not, however, appear to be any difficulty in carrying out the same principle in another way, viz., by uniting the various bodies for government in respect to matters which affect all alike, giving the various constituent districts a certain amount of local autonomy.

Liverpool, Bootle, and Birkenhead form part of the Port of Liverpool, and the Mersey Docks and Harbour Board has large valuable docks in the areas of each authority.

The three towns are mainly dependent upon the trade at the docks, and at the present time the users of the docks in Liverpool and Bootle are paying a considerable snm per annum towards the interest on the debt upon the docks in Birkenhead. Any concession made to Birkenhead by the Dock Board in the matter of rates is considered by Liverpool as prejudicial to its interests, and it is well known that Birkenhead has been endeavouring to induce the Dock Board for some time to improve its estate in Birkenhead.

One Rating Authority.

If Liverpool, Bootle, and Birkenhead were virtually one rating authority generally dependent upon each other within certain limits, then these questions of preferential treatment would not be raised, and dock improvements carried out in one district would indirectly, if not directly, benefit the other, becanse they would be beneficial to the port generally.

The question, therefore, to be considered is how such a union of government can be best carried into effect.

The following is a broad outline of a scheme for this purpose:—

It would, in the first place, be necessary to define the areas of thecontributing authorities, and these might be constituted as follows:—

1. Liverpool with Fazakerley.
2. Bootle with Orrell, Litherland, Seaforth, and Waterloo, Great Crosby and Little Crosby.
3. Birkenhead with Wallasey.

The areas included in Nos. 2 and 3 might be sub-divided, if found desirable.

Each of these could be governed by its own council.

A central authority could then be formed from these three district councils by the nomination of representatives by each according to population or rateable value.

The central authority would govern and regulate all matters and undertakings which equally affected each separate community, such as water supply, police, electric supply, tramways and education, and probably the construction and improvement of main thoroughfares.

The central council should be given power to delegate to each district council certain matters of a purely local character, and vote the necessary moneys to enable the district councils to carry out their duties upon estimates submitted annually by the councils to the central council for the purpose, and the district councils should have the power to appoint such committees as might be necessary for the administration of the districts.

The raising of loans and levying of rates should be under the jurisdiction of the central council.

With regard to the rates to be levied in the various districts, it would be impossible to have one uniform general rate either for sanitary or borough fund purposes, because, so far as these rates represent the interest and sinking fund contributions of the debts existing in each district when federated, it would not be fair to charge the ratepayers of one district

Name of district.	Population of each area.	Total population of combined areas.	Total rateable value of each area.	Total rateable value of combined areas.	Rateable value per head of population of each area. Approx.	Total rateable value per head in each of the combined areas.
					£	£
Liverpool (including Fazakerley) ...	726,930*	726,930	4,475,855	4,475,855	6 1/4	6 1/4
Birkenhead	113,000*	—	593,000	—	5 1/4	—
Wallasey	53,579†	166,579	341,000	934,000	6 1/4	5 5/8
Bootle	60,800*	—	515,787	—	8 1/2	—
Waterloo	23,102†	—	120,000	—	5 1/4	—
Litherland	10,592†	—	50,866	—	4 3/4	—
Great Crosby	7,555†	—	50,111	—	6 1/2	—
Little Crosby	563†	—	5,304	—	9 1/2	—
Orrell	3,500*	106,112	11,516	753,584	3 3/4	7 1/4
	999,621	999,621	6,163,439	6,163,439		

* Estimated. † 1901 Census.

with the rates levied for these purposes in any other district. Each district should provide for the repayment of its existing debt.

Subject, however, to the outstanding debt of each district being ascertained on a given day, and provision being made for the necessary rates being raised in each district to meet the charges for sinking fund and interest, there is no reason why one uniform rate should not, thereafter, be levied over the whole local government area to meet ordinary expenditure, and also the charges for interest and sinking fund on future capital expenditure.

If Liverpool, Bootle, and Birkenhead were united in the manner suggested, the following advantages would accrue:—

(1) There would be a common interest in promoting the commercial prosperity of the port.

(2) United action could be taken in any question affecting the health and welfare of the inhabitants, such as schemes for drainage, increased communication between the various districts, and a better water supply, &c.

(3) The beneficial enactments obtained by one borough, or district, could be extended to the other boroughs and districts.

(4) The social life of each borough, which has its centre at the respective town halls, could be maintained.

(5) Most of the existing officers could be maintained in their positions, thus saving the heavy cost consequent upon having to pay compensation for abolition of office.

This is merely an outline of the scheme, the details of which would have to be carefully considered and worked out; and among other questions for consideration would be the adjustments which would have to be made between the boroughs, or districts, to meet the loss caused by the payment to the general rate of the future profits from undertakings such as tramways, electric lighting undertakings, ferries, gas, &c.

The differential rating now existing in Liverpool and Birkenhead would have to be provided for unless the districts affected would agree to come into the general scheme for equal rating after the union.

BRADFORD MARKET EXTENSION SCHEME.

BIG WORK NECESSARY.

TO encourage the trade of the town, the Bradford Corporation is seeking powers to spend £45,000 for the extension of two of its markets and for the covering of a portion of a third. The present demand for the stalls is so great that in one market (St. James's) people are erecting wooden structures on the ground let to them by the Market Committee. Other large towns in the north of England are covering their markets, and unless Bradford does the same trade will go elsewhere. This week a Local Government Board inquiry into the application to borrow the money has been held.

STRATFORD AND ITS ELECTRIC LIGHT.

THE Stratford-on-Avon Town Council decided on Tuesday night to apply to the Board of Trade for a Provisional Order to extend the time limited by the Electric Lighting Order of 1901 for laying the mains in the compulsory area, and to allow the transfer of powers to the Birmingham Installation Company. The agreement with the company was sealed. The company agrees that the charge for lighting streets and other public places shall not exceed 2½d. per Board of Trade unit, for motor and power purposes 3d., and for lighting private premises 5d. The Corporation has the right to purchase, at the expiration of 11 years, at a figure equal to the previous five years' profits, plus the valuation of the works.

MR. H. D. BLAKE, managing director of the Limmer Asphalte Paving Co., Limited, has been elected a member of the Royal Sanitary Institute.

EDUCATIONAL NOTES.

Extra-District Children — Whitehall Circular. The Police as School Attendance Officers. Clay Pipes for Soap Bubbles. Inspection of Secondary Schools in the Metropolis. The Right of Entry at Walthamstow. Warrington and Married Women. Babies' Galleries a Liability of the Managers. Teachers' Houses in Wiltshire.

Bedfordshire. — The Education Committee decided, in cases where teachers were temporarily disengaged owing to closure of their schools through epidemics or otherwise, they be required to teach in other schools within the county. Extra payments are to be made for such time as the teachers are so engaged.

Boston.—The Education Committee refused an application from the trustees of the Bluecoat Voluntary Schools asking to be allowed to repay, out of the income of the charities belonging to the schools, the interest and instalment of principal on a loan of £580 which it was proposed to borrow to purchase property adjoining the school. The income derived by the Education Committee from the charities was £119.

Burton-on-Trent.—The Board of Education has intimated to the Education Committee that it would not be to the interests of the Borough for the committee to establish and maintain a secondary school of its own, and has forwarded suggestions for the formation of a suitable governing body of such a school.

Combination of Authorities.—Many difficulties have lately arisen in cases where children, residing in the area of one local authority, attend schools situated in the area of another. In Circular No. 516, just issued, the Board of Education points out that, in such circumstances, it is open to the authorities concerned to make arrangements for the joint administration of a school common to both districts, and attention is directed to the following points:—(1) Any agreement embodying these arrangements should be expressed to be between the councils concerned and not the education committees. (2) Some of the managers should be appointed by each authority concerned, but the duty of maintaining the school will remain with, and the managers will be solely responsible to, the authority in whose area the school is situate. (3) To this authority the other party to the agreement should pay a contribution, either fixed, or dependent upon the average attendance of children from the two areas. (4) The agreement should provide means by which either authority may withdraw from the combination, and should be expressed to be subject to the approval of the Board of Education.

Darwen.—The Board of Education has sent to the Education Committee the general conclusions of his Majesty's inspector as to the provision of adequate public elementary school accommodation in the borough. The report of the inspector recommends the supply of four additional schools.

Devonport.—It was reported to the Education Committee that the police had given the names of 160 children found in the streets, and that the attendance officers had visited the homes of the children in each case.

Devonshire.—The Education Committee declined the payment of a small sum to a person who would mind the children in one of the infant schools during the dinner hour. The question of admitting children under three years of age was raised, and it was reported that in one instance an account was submitted for 6s. for clay pipes which were used by the children to blow bubbles. It was ultimately decided not to admit children under three years of age in future.

Essex.—The Education Committee wishes to purchase about 100 pianos, and has applied to the Local Government Board as to the granting of a loan for this purpose.

Glamorganshire.—The Education Committee has started classes for teachers in the subject of school hygiene at the University College, Cardiff.

Hereford.—The Education Committee has recommended the Town Council to provide in the city and neighbourhood a secondary school, to accommodate 150 boys between 15 and 16 years of age.

Kent.—The County Education Committee has authorised school managers to arrange locally for the purchase of cleaning materials, firewood, &c. The managers may also order urgent repairs to furniture up to £3 in cases where the committee is liable for such repair.

London.—The Education Committee has recommended the Council to hand over the duties of management of the ordinary evening schools to the Council's managers of the day schools in which buildings evening schools are held.

Manchester.—The report of the Corporation's Employees' Thrift Fund just issued states that the fund stood at £136,416 on 30th September, 1904, and that out of 3,226 employees of the Education Committee eligible, only 1,414 have contributed.

Norwich.—The Education Committee has considered a scheme for the award of prizes, varying in amount per scholar in average attendance from 4/5 of a penny for infants to 1s. for senior scholars. Prizes are to be awarded for punctual attendance.

Walthamstow.—The Education Committee inquired recently into the case of a teacher in a non-provided school, and subsequently a sub-committee visited the school to hold an inquiry. During the proceedings a manager of the school challenged the right of the education authority to hold an inquiry at the school. The matter has been referred to the Board of Education.

Warrington.—The Education Committee has received the following reply from the Board of Education on the employment of married women as teachers. The Board of Education "is of opinion that the local education authority is entitled to lay down a general rule that no married women shall become or remain teachers in the schools maintained by the authority. The Board would regard such a general ground of objection as an educational one under Sec. 7 (1) (*c*) of the Education Act, 1902. I am to point out, however, that, though the Board acquiesce in your council's rule, if made of general application throughout the area of the local education authority, there are some reasons—*e.g.*, the dearth of teachers, the greater experience of married women in dealing with children, and the greater probability of their continuing in the profession, which, as it seems to this Board, would incline your council to make the rule an experimental one for a short term of years only."

Waterloo (Lancs.).—The Education Committee has been informed by the Board of Education that the Board is of opinion that alteration in infants' galleries is such an improvement of the buildings as may be reasonably required by the local education authority, and therefore one for which the managers are liable under Sec. 7 (1) (*d*) of the Education Act, 1902.

Wiltshire.—The Education Committee has been informed by the Board of Education, in reply to an inquiry, that there is nothing in the Education Act of 1902 to compel a local education authority to rent a teachers' house attached to a voluntary school unless it desires to do so.

THE Fishmongers' Company has sent a further gift of twenty-five guineas, and the Salters' Company five guineas, to the funds of the Bethnal Green Free Library, E.

ENGLISH TELEPHONY.

The Position To-day Compared with the Rest of Europe. British Manufacturers and Traders Permanently at a Disadvantage. Low Rates Proved by Municipal Action to be Practical. Wherever there is Competition, the National Telephone Company Reorganises and Modernises Its System. An Impressive Warning as to the Dangers of Government Purchase Without First Ensuring Low Rates.

[By Mr. ALFRED R. BENNETT, M.I.E.E.]

THE following is a statement, compiled from published rate lists and advertisements, of the National Telephone Company's tariffs in towns where competition exists or has existed. The most noteworthy points are the £5 per annum exclusive line, with unlimited number of calls, for private houses at Hull, and the suppression of the £10 and £8 10s. unlimited rates at Portsmouth and Swansea. Where Corporation competing exchanges exist their tariffs are also given.

Many of the tariffs have been in operation for years—that at Sheffield for about 12 years, and those at Glasgow, Tunbridge Wells, and Portsmouth for from two to three years, and they are still vigorously pushed. They cannot, therefore, be taken as experimental rates, but rather as representing what are remunerative rates to the company, and what British cities and towns can be telephoned for. There is danger that the Post Office, in carrying out the contemplated purchase of the telephones, may pay such a price as to make any cheapening of telephony in the United Kingdom impracticable, thereby placing British manufacturers and traders permanently at a disadvantage as compared with their competitors in foreign countries, where cheap telephone rates prevail. They are already so in respect to telephone trunk line rates, as those charged by the British Post Office have no parallel elsewhere in Europe. Foreigners are also free from the terminal charges which the National Telephone Company is permitted to impose on trunk messages exchanged between its subscribers and those of the Post Office and Corporations.

Exorbitant Price for Old Plant.

At different times the Corporations of Hull and Eastbourne have negotiated for the purchase of the company's system in their respective areas, but both found that the price demanded for the old plant was about three times the cost of an entirely new exchange. Purchase on such terms was out of the question, as it would have precluded the possibility of giving their burgesses lower rates. It is unlikely that the company will sell to the Post Office except on some such favourable terms; it can scarcely ask its shareholders to write off a proportion of their holdings, and as many have bought into the company at 106·8 for the purpose of making a profit out of the anticipated sale, it is improbable that they would agree even if asked. Consequently, there is a likelihood of the Post Office recommending Parliament to buy at a price that would burden the public with high rates in perpetuity. It is true that a Select Committee has been promised, but no terms of reference have been mentioned, and it is by no means certain that it is intended that the Committee shall take evidence and sift matters to the bottom.

It therefore behoves local authorities, chambers of commerce, trade associations, and kindred bodies throughout the kingdom to take concerted action to impress upon the Government that any purchase of the telephones would be useless unless it could be arranged beforehand to ensure that the low rates proved to be practical by the corporations and by the company itself, as demonstrated by its published tariffs, can be made universally applicable. It would be suicidal to agree to a price without ascertaining definitely what scale of rates that price would render practicable. The Post Office makes a recurring loss on the telephone business which it at present conducts. The Treasury, after a purchase, would certainly insist on rates that would produce a profit on the purchase price, and so, unless foresight be exercised, telephone users may have their rates raised instead of reduced. Further, if no purchase takes place, it should be made a condition of any prolongation of the company's licence which may be granted in any part of the kingdom, that the reduced rates now in force at Glasgow, Hull, &c., be brought into immediate use universally and permanently.

The Fruits of Competition.

A secondary point for consideration and investigation is why the company's telephone charges differ so materially in different places. Why should it charge so much lower in Glasgow than in Huddersfield, in Hull than in Edinburgh, in Portsmouth and Brighton than in Southampton and Ramsgate, and in Swansea than in Cardiff?

It is remarkable that no distance limit is imposed on any of the rates, low as they are, except at Sheffield and Tunbridge Wells. This is another inequality between competitive and non-competitive towns which calls for redress.

Wherever there is competition, too, the company reorganises its system, modernises its apparatus, and spares no expense to meet its subscribers' wishes. It opens public telephone call offices everywhere. In Glasgow it now has over 1,000 such offices, whereas before the competition there were only some dozen or so.

It should be understood that the corporation tariffs are remunerative. In no cases are corporation exchanges being run at a loss, while they continue to grow in spite of all opposition.

GLASGOW TELEPHONE AREA.

Population 1,000,000.

National Telephone Company.

1. EXCLUSIVE LINE.—Unlimited use, £10 a year first connection. Second connection, £8 10s. a year.
2. TWO PARTY LINE.—Unlimited use, £6 a year.
3. EXCLUSIVE LINE.—Measured service, £5 a year, 600 calls. Excess calls 1d. each, or £300 for £1.
4. FOUR PARTY LINE.—Unlimited use, £4 a year.
5. TEN PARTY LINE.—No installation charge, subscriber to guarantee 2d. a day (payment for two calls). Extra calls, 1d. each.
6. OMNIBUS LINE.—25s. a year for 600 outward calls. Excess calls, ½d. each.
7. SPECIAL EXCLUSIVE LINE for private houses, £5 for 1,500 calls. Excess calls, 1d. each.
8. EXTENSION STATION in the same building as the main station. On a message rate liue, 15s. a year. Ou a flat rate liue, £1 a year.

Special terms to large users. All inward calls aro freo.

Corporation.

EXCLUSIVE LINE.—Unlimited use, £5 5s. per annum.
TOLL SERVICE.—Exclusive line, £3 10s. per annum, and 1d. for each outward call.
TWO PARTY LINE.—Unlimited use, £4 4s. per annum.
FOUR PARTY LINE.—Unlimited use, £3 3s. per anuum.
All inward calls are free.

HULL TELEPHONE AREA.

Populatiou, 300,000.

National Telephone Company.

EXCLUSIVE LINE.—Unlimited service, first connection, £10 per annum. Secoud connectiou, £8 10s. per annum.
Private Houses, £5 per annum. Exclusive line, unlimited service.
Rates for Large Users:—
10 or more exchange lines, £7 per line per annum.
15 or more exchauge liues, £5 10s. per line per annum.
LINE TO BE USED FOR TRUNK LINE CONNECTIONS ONLY, £5 per anuum.
EXCLUSIVE LINE.—Measured Service:—

600	messages,	£5 per aunum.
1,100	,,	£6 ,,
1,600	,,	£7 ,,
2,100	,,	£8 ,,
2,600	,,	£9 ,,

Extra messages, 1d. each.
Message Rate Service, £3 per annum and 1d. per message.
TWO PARTY LINE.—No installation charge, subscriber to guarantee 4d. per day (payment for four messages). Extra messages, 1d. each, or
Unlimited Service, £5 per annum.
FOUR PARTY LINE.—Unlimited service, £4 per annum.
TEN PARTY LINE.—No installation charge, subscriber to guarantee 2d. per day (payment for two messages). Extra messages, 1d. each.
OMNIBUS LINE.—25s. per anuum for 600 messages. Extra messages, ½d. each.
EXTENSION LINES.—Extension station in the same building as the main station. On a message rate line, 15s. a year. Ou a flat rate liue, £1 a year.
All inward calls on all services are free.

Corporation.

EXCLUSIVE LINE.—Unlimited use:—
For business premises, £6 6s. per annum.
For business premises (second counection), £5 15s. per anuum.
For private houses, £5 per annum.
TOLL SERVICE.—Exclusive line, £3 per annum and 1d. per outward call.
All inward calls are free.

PORTSMOUTH TELEPHONE AREA.

Population, 250,000.

National Telephone Company.

No mention is made of any £10 or £8 10s. unlimited rate.
1. EXCLUSIVE LINE.—Measured service:—

£5	0	0	a year providiug 1.800 messages.	
5	10	0	,, ,, 2,500	,,
6	0	0	,, ,, 3,000	,,
7	0	0	,, ,, 3,500	,,
8	0	0	,, ,, 4,200	,,
9	0	0	,, ,, 5,000	,,

Extra messages, ½d. each.
2. EXCLUSIVE LINE.—Message rate, £3 10s. a year, and ½d. a message.
3. TWO PARTY LINE.—Unlimited use, £3 a year.
4. TEN PARTY LINE.—No rental. Subscriber to guarantee to originate on an average 1d. call a day.

Corporation.

EXCLUSIVE LINE.—Unlimited use, £5 17s. 6d. per annum.
EXCLUSIVE LINE.—Unlimited use, second connection, £5 5s. per annum.
EXCLUSIVE LINE.—Toll Tariffs:—
1. £3 10s. per annum, with ½d. for each outward call.
2. £2 10s. per annum, with 1d. for each outward call.
3. £5 per annum to cover 1,800 outward calls. Extra calls, ½d. each.

All inward calls are free.

BRIGHTON TELEPHONE AREA.

Population, 185,000.

National Telephone Company.

EXCLUSIVE LINE.—Unlimited service, first connection, £10 per annum. Secoud and additioual connections, £8 10s. per annum.
EXCLUSIVE LINE.—Limited service, £3 10s. per annum, plus ½d. per call.
EXCLUSIVE LINE.—Measured service:—

£5	0	0	per annum with 1,800 free calls.	
5	10	0	,, ,, 2,500	,,
6	0	0	,, ,, 3,000	,,
7	0	0	,, ,, 3,500	,,
8	0	0	,, ,, 4,200	,,
9	0	0	,, ,, 5,000	,,

Additional calls, ½d. each.
TWO PARTY LINE.—£3 per annum, with unlimited service.
TEN PARTY LINE.—No installation charge. Subscriber to guarantee 1d. per day (payment for one local call).
OMNIBUS LINE.—25s. per annum for 600 calls. Extra calls, ½d. each.
All inward calls are free.

Corporation.

EXCLUSIVE LINE.—Unlimited use, £5 10s. per anuum.
EXCLUSIVE LINE. Toll service, £3 10s. per annum, with 1d. for each outward call.
PARTY LINES:—
Two Party, unlimited use, £4 4s. per annum.
Four Party ,, ,, £3 ,,
All iuward calls are free.

SWANSEA TELEPHONE AREA.

Population, 150,000.

National Telephone Company.

No mention is made of any £10 or £8 10s. unlimited rate.
EXCLUSIVE LINE.—Measured service:—

1,800	messages ...	...	£5 0 0	a year.
2,500	,, ...	...	5 10 0	,,
3,000	,, ...	...	6 0 0	,,
3,500	,, ...	...	7 0 0	,,

½d. for each additional outward message.
EXCLUSIVE LINE.—Message rate, £3 10s. a year, and ½d. per message.
TWO PARTY LINE. Unlimited use, £3 a year.
TEN PARTY LINE. Subscriber to guarantee 1d. per day (payment for one message). Extra messages, 1d. each.
OMNIBUS LINE. 600 messages, £1 5s. a year. Extra messages, ½d. each.
All inward calls are free.

Corporation.

EXCLUSIVE LINE. Unlimited use, £5 per annum.
EXCLUSIVE LINE. Toll tariff, £3 per annum, with 1d. for each outward call.
All inward calls are free.

TUNBRIDGE WELLS TELEPHONE AREA.

Population, 70,000.

National Telephone Company.

EXCLUSIVE LINE. Unlimited service, £6 per annum.
MESSAGE RATE.—£3 10s. per anuum, and 1d. per outward call. Subscribers to guarantee a miuimum payment of 30s. per annum, and to deposit that amouut as security.
TEN PARTY LINE. No annual payment. Outward

calls, 1d. each. Subscriber to guarantee a minimum of 2d. per day. Money collected in slot machine.

TWO PARTY LINE.—Same as Ten Party Line, but subscriber must guarantee a minimum of 4d. per day.

All inward calls are free.

Foregoing rates for exclusive lines apply to one mile from the Exchange only, and in the case of Party Lines to 220 yards from a main circuit.

The low rates in the Tunbridge Wells area were brought about by the establishment of a Municipal Telephone Exchange, which, after being in successful operation and paying its way for a few months, was sold to the National Telephone Company. While the Corporation obtained several thousand pounds more than their Exchange had cost and secured permanent and substantial reductions on the tariffs which had prevailed prior to competition, it is obvious from an inspection of the present National Telephone Company charges that the Tunbridge Wells people are far worse off, both as regards tariffs and restrictions, than those of Glasgow, Portsmouth, Brighton, and the other places which have kept their own Exchanges.

SHEFFIELD, CITY AND SUBURBS.

Population, 427,000.

National Telephone Company.

BUSINESS PREMISES within 1½ miles of an Exchange, £8 per annum.

BUSINESS PREMISES within 2 miles of an Exchange, £10 per annum.

PRIVATE HOUSES not exceeding 2 miles from an Exchange, £7 per annum.

The low charges in Sheffield were brought about by the threatened competition of the New Telephone Company in 1892. A committee of Sheffield citizens was formed to arrange for such competition, to avoid which the National Telephone Company agreed to introduce and permanently maintain the tariff as noted.

GUERNSEY.

Population, 40,300.

National Telephone Company.

The Company has no Exchanges in Guernsey. In order to start one it asked £10 per line per annum, with extras for distances beyond one mile; when the Local Authority threatened to undertake the telephoning of the Island themselves the £10 was reduced to £8. When it became apparent that the Local Authority were in earnest this £8 was further reduced to £6, with other concessions thrown in; but the States declined to be turned from their purpose, although the last offer would probably have been accepted had it been made in the first instance.

States (Local Authority).

The States established their Exchange in 1898, and it is now accordingly in its seventh year of working. The following are the tariffs, which yield a satisfactory profit. All lines are direct to the Exchange and exclusive.

1. £5 per annum to cover 4,000 outward calls; additional calls, five for 1d.
2. £2 10s. per annum and ½d. for each outward call up to 1,520; additional calls, five for 1d.
3. £1 10s. per annum and 1d. for each outward call up to 1,000; additional calls, five for 1d.

All inward calls are free.

MUNICIPAL OFFICERS' C.C.

FIRST ANNUAL SMOKER.

THE Borough of Lewisham Municipal Officers' Cricket Club held their first annual smoking concert the other evening at Obelisk Hall, Lewisham, when a large and enthusiastic audience was present. The Mayor (Thomas White, Esq., J.P.) occupied the chair, and was supported by Councillors C. W. Dawson and C. H. Dodd. There were also present, amongst others, E. H. Oxenham, E. van Putten, H. P. Hall, John Carline, J. W. Shuter, F. J. Read, W. T. McDougald, E. C. Baker, T. Graham, F. E. Barrett, H. R. Gooding, A. H. Mann, E. F. Elliott, Thomas Faldo, and "Walter."

A capital programme, under the direction of Mr. Alex. J. Frogley, was contributed by the Chairman and Messrs. W. G. Allen, J. A. K. Cooper, J. Crowther, Leslie T. Pidwell, F. Seckerson, A. W. Thorne, Flaxman, Cooper, Hyde, W. J. Ebbetts, Alex. J. Frogley, Charles L. Gray, Harry Swindale, Walton F. Wood, Robert White, and Prof. Stanley Collins.

Messrs. J. A. K. Cooper, H. King, H. C. Moore, W. F. Owsley, E. J. Swindale, and A. W. Thorne acted as stewards, and Mr. Horace Chambers as accompanist.

Votes of thanks to the Mayor and to the artistes were passed.

A complimentary banquet was given to the ex-Mayor of Bideford at Tanton's Hotel, Bideford, on Monday evening. Alderman J. Cock (Mayor) occupied the chair, and was supported by the Mayors of Barnstaple and Torrington, and others.

DARTMOUTH TOWN CLERK.

MR. SYDNEY J. POPE.

MR. SYDNEY J. POPE, who has lately been appointed town clerk of Dartmouth, is 27 years of age, and started in life as an office boy to a firm of solicitors at Paignton 13 years ago. Seven years after he was promoted to the position of managing clerk to the same firm of solicitors (one of whom was then the town clerk of Dartmouth) at their Dartmouth branch, and took up his residence at Dartmouth.

Mr. Pope remained in this position up to June, 1903, when his employer was compelled to give up the office of town clerk. The Council having advertised for a new town clerk (and having in the meantime appointed Mr. Pope to act as town clerk *pro tem.*) then appointed Mr. H. Roberts, a solicitor of Dudley, to the position, who engaged Mr. Pope as his assistant. This gentleman resigned his office on the 9th ult., and Mr. Pope was then unanimously elected in his place. In July of last year Mr. Pope was appointed clerk to the Dartmouth and Totnes port sanitary authority in preference to several local solicitors, who also applied for the post, and this position he now holds.

MR. SYDNEY J. POPE
(Dartmouth New Town Clerk).

GLASGOW TOWN CLERKSHIP.

THE QUESTION OF SALARY.

A SPECIAL committee of the Corporation of Glasgow appointed to consider the arrangements to be made in connection with the office of town clerk of the city held a meeting on Wednesday, and after deliberation agreed to recommend that the salary to be given to the new town clerk should be not less than £1,500 per annum. The committee further recommended that the salary to be paid to Mr. J. G. Monro, as town clerk, should be £1,000 a year, to continue at the same rate until a permanent appointment be made. Both recommendations had the unanimous support of the committee.

PRESENTATIONS TO THE EX-MAYOR AND MAYORESS OF KENSINGTON.

ALDERMAN MAJOR H. ISAACS, Mayor of Kensington for the years 1902-3 and 1903-4, was the recipient of a very handsome presentation on Tuesday from members of the borough council and others. With the amount subscribed, some 200 guineas, several articles of silver had been purchased by an executive committee, the wishes of the ex-mayor having first been consulted in the matter. The presentation took place in the Kensington Town Hall. The proceedings also included the presentation to Miss Estelle Isaacs of a diamond necklet from the members of the borough council as a small souvenir of the two years that she occupied the position of mayoress of the borough.

MUNICIPAL GASWORKS

DUNDEE'S GREAT ENTERPRISE.

THE reconstruction of Dundee Gasworks has now been completed, and they were this week inspected by the members of the Town Council. The undertaking has involved a capital expenditure of £120,000, while recently a carburetted water gas plant has been laid down at a cost of from £8,000 to £10,000, this apparatus being intended as a stand-by at exceptional seasons. Between the two plants the works are capable of producing 5½ million cubic feet of gas every 24 hours.

Amongst the first objects of interest at the inspection was the retort house, which was seen in full operation. There accommodation is provided for 12,000 tons of coal, and it was explained that the consumption was about 400 tons per day. The retorts in the new house, 576 in number, are operated upon by hydraulic stoking and drawing machines, the old system of hand labour having been entirely discarded, and here there is an equipment of coal breaking and elevating machinery. The condensers are on a scale equal to dealing with over five million feet of gas per 24 hours, while the tarwell underneath can store 120,000 gallons, and the ammoniacal liquor is eventually pumped to an overhead tank for treatment at the chemical works. The appointments of the purifiers and meters are very complete, and it was pointed out that the six gas-holders could hold nearly three million feet of gas.

The main object which the Town Council had in view in introducing the new carburetted water plant was to avoid a large additional expenditure on a new gasometer, and to provide a quick extra supply of gas at a cheap rate. This plant has been in operation for about two months, and since then it has been going steadily. It is claimed for it that it has entirely fulfilled expectations in the case of abnormal demand in dull weather. With its assistance the officials are able to keep the retorts at the same heat over the week-ends, thus avoiding expansion and contraction, and it has been ascertained that the carbonising results are in consequence better and cheaper.

PROPOSED EXTENSION AT WIDNES.

The Widnes Town Council is applying to the Local Government Board for sanction to amend or repeal certain local Acts in order to allow it to extend its gasworks. On Wednesday an inquiry was held by Mr. F. C. Tullock, Local Government Board inspector. The town clerk explained that it was proposed to increase the retorts, in order to enable them to produce 2,000,000 instead of 1,500,000 cubic feet of gas, to a total holding capacity of 2,100,000. The land the council proposed to purchase from the United Alkali Company was 9,650 yards. The present estimate for the works is £49,362, and for the retorts £5,000, making a total of £54,362. The authority's unexhausted borrowing power is £24,700, and it will require additional borrowing powers for £29,662.

MONIFIETH GAS.

In connection with a proposal on the part of the Town Council of Monifieth to enter into negotiations for acquiring the local Gasworks, several of those interested in the purchase have been instituting inquiries with the view to obtaining information on the capability of the works in the way of extension, and also as to their general suitability. For some time the management of the private company has been troubled with leakages in certain quarters.

In view of this fact, some anxiety has been created in the community, and a desire has been expressed that all these points ought to be placed before an expert before any definite offer is made for the works on behalf of the municipality. It is further stated that, even although the gasworks are purchased by the municipality, there is no possibility of extension on account of the construction of the buildings. This further point, it is also held, ought to receive the attention of any expert who may be called in to advise the Council.

WOOLWICH NEW LIBRARY.

The Inception of the Library Movement in this Democratic Borough and the Battle at the Polls. The Plumstead Library, Opened on Saturday by Mr. John Morley, M.P., is the Second Erected Within the Borough, and the Construction of a Third is Shortly to be Commenced. A Description of the New Building. Mr. Morley on the Use of Libraries.

"WOT do we want wi' libraries? Up to nah we've done wi'art 'em." This is what Mr. Will Crooks, M.P., was told by many of the parishoners of Plumstead, Woolwich, so recently as 1890, when a poll was taken and for a third time resulted in an adverse majority against the adoption of the Public Libraries Acts.

But the democracy was on the eve of awakening to the great advantages of education, and when on the 9th February, 1898, a renewed effort was made, this, the fourth poll, resulted in a favourable majority of 1,029. And since that day the construction of three public libraries in different parts of the borough has been commenced. One was opened at Woolwich in 1901, another was opened on Saturday by Mr. John Morley, M.P., at Plumstead, and a third is to be erected at Eltham.

The New Building.

The building which was opened on Saturday is worthy of the Borough Council. Mr. John Morley is pleased with it, for he said so twice—at the opening ceremony and in the subsequent speech he delivered at the Woolwich Polytechnic, and he added: "If there is one thing I know in this world it is a library." The library is erected on a portion of land purchased for municipal purposes on the south side of High Street, Plumstead, the site being situated where the population is very dense and rapidly increasing. It is entered from the street, to which it has a frontage, faced with red brick, of 60ft., and a depth of 131ft., by a vestibule, leading to a spacious corridor. On the right is the news room, 56ft. by 24ft., furnished with newspaper stands for 56 papers, and, in addition, two tables to accommodate 14 readers. On the left is the magazine room, 29ft. by 24ft., with tables to accommodate 42 readers, and with special furniture for magazines, directories, and time-tables. At the rear of the news room is the lending library, which, with the borrowers' space, covers an area of 64ft. by 32ft., and has at present shelving accommodation for 20,000 volumes. Here, and in the reference library, the shelves are provided with Cotgreave adjustable fittings. The ladies' room, 21ft. by 18ft., with accommodation for 28 readers, and the librarian's room, 21ft. by 12ft., are entered from the borrowers' space. The juvenile library, 34ft. by 21ft., has a separate entrance and vestibule, from the private road on the east side of the building. It has sitting accommodation for 48 readers, and also contains the lending counter for the juvenile department. The juvenile library does not communicate, except privately, with the other parts of the library. The first floor of the public portion of the building is approached from the end of the corridor by a stone staircase, 7ft. wide, and comprises reference library, 65ft. by 24ft., and "spare room," 65ft. by 30ft. The reference library is lighted by three large ceiling lights, and has shelving accommodation round two sides and one end of the room for 6,500 volumes. A wrought iron rail and oak handrail form a barrier between the public portion of the room and the books.

Internal Arrangements.

The large "spare room," more properly called a hall, in which Mr. John Morley performed the opening ceremony, has an elliptical ceiling, is lighted solely from above, and has been designed with the object of being used as a museum, or for library lectures. In the basement, under the front half of the building, spacious repairing and store rooms are provided, and are furnished with shelving available for the storage of about 5,000 volumes. A lift communicates with the lending and reference libraries. A residence for the librarian in charge is provided on the first floor, facing the High Street, and consists of sitting room, kitchen, four bed rooms, scullery, and usual offices. Messrs. H. Lovatt, Limited, of London and Wolverhampton, are the builders. The ventilation was carried out by Messrs. R. Boyle and Sons, Limited, the heating by Messrs. J. Jones and Sons, Limited, and the electric lighting by the borough electrical engineer. The whole of the floors are fire-proof. The fittings have been carried out by the Educational Supply Association, Limited, at a cost of about £1,125, and are of polished oak throughout, and include general furniture, indicators, counters, &c. The fittings were designed by the borough engineer, and the borough librarian has been in close consultation with the borough engineer in connection with the preliminary planning of the building, and the designing of the furniture.

The total cost of the building, including furniture, heating, lighting, &c., is about £14,000. Of this amount £9,000 has been defrayed by Mr. Andrew Carnegie, from whom was secured, in July, 1902, an offer to provide £14,000 to erect public libraries at Plumstead and Eltham. As the Woolwich library was erected before the formation of the metropolitan boroughs, and while Woolwich was still a parish, the desirability of erecting a larger library in the borough was soon realised by the first Library Committee of the Council. Mr. Carnegie's gift made this possible, and the larger building was thus proceeded with earlier than could otherwise have been the case. The additional cost has been defrayed from accumulated library rates; £2,704 being transferred to the borough Council by the Plumstead Commissioners for library purposes.

The lending department, which was available for the public forthwith, opened with a stock of 10,289 volumes. These have been carefully selected during the last 18 months, and purchased at a cost of about £1,700. It should be mentioned that Mr. Charles Beasley, Mr. George Whale, and other donors, have kindly presented valuable books to the lending and reference departments, the latter of which is not yet fully stocked.

Mr. Morley on Libraries.

Mr. Morley, in the course of a speech which lasted three-quarters of an hour, had much that was fresh to say to the general reader. Though one of the first bookmen of his day, he admitted that reading books is only a part of education. He went further, and rejected the theory that free libraries are useless because two-thirds of the books borrowed are novels.

He had some special words to librarians:—

> If I were the librarian at Plumstead or Woolwich, and I were asked what poet I would recommend a reader to begin with, I think I should say—and this may seem surprising to some—Byron. He is not the greatest of poets, but he has energy, an historic sense, a loathing for cant in all its shapes, whether it is the cant of the upper ten thousand or the cant of the million. And remember that he was the great centre and inspiring force of democracy in the Continent of Europe. I venture to think that when our democracy seeks inspiration in poetry, Byron will once more have his day.

In another part of his speech he submitted that some day a census might be taken of three or four typical streets in Woolwich, and an estimate made of the books and the kind of books that were to be found in each one of the houses. It would be of enormous interest, he said, and Mr. Crooks, if anyone, could do it without impertinence.

He declared himself constantly appalled at the "shocking trumpery" he finds on the shelves of those—he supposed he must call them middle-class people, though he hated to speak of classes—who entertained him when he travelled about the country.

Mr. Morley closed with an eloquent description of all that a good library embodied and represented.

The mayor of the borough (Councillor Rev. L. Jenkins Jones, J.P.) presided over Saturday's proceedings, and amongst the speakers were Mr. W. Crooks, M.P., and Councillor Chambers, L.C.C.

COUNCIL OR COMPANY?

THE ELECTRIC LIGHTING QUESTION AT NEW BARNET.

THERE is a very interesting position existing just now in regard to electric lighting at New Barnet. The council obtained a Provisional Order, after some opposition, from the North Metropolitan Company, in 1899. In 1901 Mr. W. P. Adams was appointed consulting engineer, and drew up a report for the guidance of the council. The district is a residential one, and suitable for electric lighting, and, after a very large amount of study given the subject, the committee recommended the council to adopt a scheme of combined electricity works and refuse destructor, involving a capital expenditure of about £12,000. This scheme was adopted by the council, and application made to the Local Government Board for borrowing powers.

As soon as the council arrived at some definite plan of action trouble began to arise; meetings were called, and a committee constituted to oppose. All sorts of fairy tales were spread abroad, and after the opposition had carefully sown the ground a petition was sent up to the Local Government Board signed by 700 or 800 ratepayers. At the Local Government Board Inquiry much opposition was offered to the Council's scheme. The local interest was very small until the Council had adopted the scheme, and Mr. George Offor, on behalf of the North Metropolitan Company—an offshoot of the B.E.T. Co.—was present at the inquiry, and was permitted to oppose, which he did vigorously, although the company had no *locus standi*.

After a delay of a month or two the Local Government Board wrote to the Council, saying that it would defer its decision on the matter until after an election which was to take place shortly, the result being that the election was run on the electric lighting question, and three supporters of the Council's scheme were defeated. The newly-constituted Council, after some delay, then entered into negotiation with the Sir Hiram Maxim Company, which offered to undertake the installation and working of the undertaking for a period of years. The Sir Hiram Maxim Company subsequently withdrew, and negotiations were then entered with the National Electric Construction Company, and a month or two ago the Council passed a resolution approving of this company's offer. No sooner had this resolution been passed than Mr. J. B. Braithwaite, Jun., took up the matter with very great vigour. His association with the group of companies to which the North Metropolitan Company is allied is, of course, notorious. Public meetings were again called, and the Council's scheme vigorously denounced through the Press and meetings.

Although since the Council obtained a Provisional Order it has several times approached the North Metropolitan Company with a view to obtaining workable terms, no reasonable offer has ever been made which the council could accept. Whenever the company has been approached every possible difficulty has been put in the way so as to cause delay in the negotiations. The Council has had the time for putting the Order into operation extended twice since the time of the granting of the Order, and there is no doubt that the North Metropolitan Company is now doing its best to delay matters until the Board of Trade shall revoke the Order.

It does not matter what scheme the council may tabulate, opposition will certainly arise from the North Metropolitan Company, which has a small station at Barnet, and, pending the bringing of its power mains into the neighbourhood, it is anxious to secure rights over such areas as possible, and New Barnet is a natural stepping-stone to the districts beyond. The members of the council even now do not realise where the opposition to their efforts comes from.

The present position of affairs is extremely vexatious, and there is no doubt that if left to itself the council would carry through what is right and proper in the case, namely, a municipal scheme, and there is no doubt, also, that the district is suitable for such a scheme.

NOTES AND ANSWERS.

Hints to Councillors on the Provision of Public Abattoirs. Compulsory Purchase of Land Authorised Where Voluntary Purchase Cannot be Effected. Public Expenditure for Band in Public Park of an Urban District Council. Municipal Corporations May Incur Reasonable Expenditure in Printing Its Records. Raising Large Sums of Money in Rural Districts.

581.—URBAN DISTRICT COUNCILS—Provision of Abattoir.—A councillor of our urbau district council has given notice of motion, "That we provide a public abattoir." I should be very glad of your information on this matter, viz.:—

(1) As to the general powers we possess.

(2) As to the power to purchase land.

(3) As to estimated cost of buildings. (Population 17,000.)

(4) Are we compelled to pay compeusation to present holders of slaughterhouses if we adopt a public abattoir?—"READER."

(1) The provision of abattoirs or public slaughterhouses by a local authority is regulated by Sec. 169 of the Public Health Act, 1875. It is there enacted that any urban authority may, if it think fit, provide slaughterhouses, and it shall make bye-laws with respect to the management and charges for the use of any slaughterhouse so provided. The urban district council is not under any obligation to pay compensation (nor can it legally do so) to the present holders or owners of slaughterhouses. Under Secs. 125 to 131 of the Towns Improvement Act, 1847 (which are incorporated with the above-mentioned section of the Public Health Act, for the purpose of enabling urban authorities to regulate slaughterhouses within their districts) the urban district council has the following powers:—

It may license slaughterhouses within the district.

New slaughterhouses may not be erected without its licence.

All existing places must be registered.

It may make bye-laws for the regulation of slaughterhouses owned by private persons in the district.

The sanitary officers of the council may enter and inspect such places, and seize and destroy carcases, &c., unfit for food.

Where Part III. of the Public Health Acts Amendmont Act, 1890, has been adopted, the duration of a licence may be fixed; otherwise, such duration is unlimited. The same Act provides that one conviction for having in possession, for sale, or selling meat unfit for food warrants revocation of tho licence.

The above are the chief powers of the urban district council respecting abattoirs and slaughterhouses.

(2) Sec. 175 of the Act of 1875 authorises the urban district council to purchase, or take on lease, land for the purposes of the Act. This will include the power to purchase of land for an abattoir. Sec. 176 sets out the conditions under which the council may apply to the Local Government Board for a Provisional Order authorising the compulsory purchase of land where a voluntary purchase cannot be effected. Such an Order is hardly likely to be issued unless a pressing need is shown, and in any case it requires confirmation by Parliament.

(3) Our correspondent will find much information as to abattoirs on pages 411, 412, 417, and 418 of the "Municipal Year Book" for 1904 (published at the offices of this journal, 3s. 6d. nett); and we would refer him to that publication. We have no information as to the cost of the necessary buildings required for a town of about 17,000 people, but inquiry might be made of the town clerks of some of the towns mentioned in the "Year Book" as having provided public abattoirs.

582.—CAN AN U.D.C. PROVIDE AND PAY FOR A BAND IN PUBLIC PARK?—On the agenda for our next meeting is a proposal that the urbau district council should provide and pay for a band to play in the public park (owned by the council) during the next summer season. The town is a growing one, and situate on the seaside. I should add that it is mainly depeudent upon visitors for its money. The questiou I should like answered is, Uuder what power such a proposal can be carried out?—"COUNCILLOR."

There does not appear to be any statutory or other authority under which an urban district council could provide and pay for the cost of a band to play in its public park. If the expenditure were incurred, it would be liable to be disallowed in the accounts of the council by the district auditor, and the members of the council responsible therefor would probably be surcharged with the amount involved. Apparently a local Act would be required to authorise the proposed expenditure. We can only suggest that the council should start a public subscription for the purpose, if the band is considered to be necessary in the interests of the town, and that all ratepayers should be invited to join it. Probably by this means the necessary funds would be raised.

583.—MUNICIPAL OFFICERS' SUPERANNUATION SCHEME.—I have been a reader of the *Municipal Journal* for about six years, and should feel greatly obliged if you could let me know whether there is a superannuation scheme or anything else under the Manchester Corporation for their officers in their old age? A reply through your paper would greatly oblige. "BRUMMEY."

The Corporation of Manchester administers a superannuation scheme for the benefit of its municipal employees, under the powers vested in the Corporation by a local Act. This, we understand, is a very successful scheme, and is based on sound economic principles. Various other towns have similar schemes under local Acts (e.g., Halifax, under the Halifax Corporation Act, 1902). A regular set of provisions is now inserted in draft Bills promoted by town councils where it is desired to establish a pension scheme. These have been approved by the Home Office, and require, *inter alia*, that any such scheme shall be certified by an actuary approved by the Secretary of State for Home Affairs as being economically solvent. They also authorise a contribution by the council in aid of the scheme, which will mainly depend for its resources on percentage deductions from the salaries of officers concerned.

584.—IS A MUNICIPAL CORPORATION EMPOWERED TO PRINT ITS RECORDS? Can a muuicipal corporation expend money out of the rates for the purpose of compiling aud publishing the Records of the borough. This borough obtained its Charter in 1284, and it has been ascertained that there is a large uumber of interestiug documents in the Record Office and British Museum in Loudon, and also in my custody as town clerk, relating to the borough, and it is feared that, unless they are compiled, they may become lost: and an opportunity has now presented itself to have them edited aud published by a gentleman well versed in the MSS. relating to the North Wales municipal towns.—"TOWN CLERK."

There is no statutory provision, so far as we are aware, which would empower a municipal corporation to compile and publish its records and charge the cost of so doing to the Borough Fund. On the other hand, large common law powers exist under which these bodies may spend money for many purposes not specified in Acts of Parliament. The question is, therefore, can the council of a city or town incur such expenditure under its common law powers. We understand that, as a fact, several boroughs have published their records from time to time. Many more have compiled and printed calendars thereof. In 1899 a Committee was appointed by the First Lord of the Treasury "To inquire and report as to any arrangements now in operation for the collection, custody, indexing, and calendaring of local records, and as to any further measures which it may be advisable to take for this purpose." The Committee reported in 1902, and its report was laid before Parliament. It was altogether in favour of the preservation of local records and the extension of the powers of local authorities in dealing with their records. "The county boroughs" (the Committee reports) "appear to be fairly well provided with indexes and calendars of of their collections." In most cases these are in MS., but in a few they have been, or are being, printed. We may mention, for instance, the catalogues of Coventry and Leicester. Cardiff and Norwich are mentioned as places where special archivists have been employed, and in Exeter, Gloucester, Leicester, and Norwich the records have been classified and arranged by experts, "while numerous extracts from the more interesting of the records have been printed and published." Reference is made in a footnote to Miss Bateson's edition of the "Leicester Records" and Mr. W. H. Stevenson's edition of the "Gloucester and Nottingham Records" as being of great value. Presumably these records and calendars were published at the expense of the borough concerned in each case. We have referred to the report to show the view taken of the matter by the central authorities, and the inference strongly suggested that the expenditure involved may fairly be charged to the rates. In our opinion, a town council may properly incur expenditure (and charge it to the borough fund) in arranging, compiling, and calendaring its records. It may also, we submit, incur a reasonable expenditure in printing its records, or such of them as are of public and local interest. We doubt whether the council could justify any very heavy expenditure in the matter. In any case, the difficulty of effectively objecting to any items of expenditure authorised by the council, and the expense involved in the necessary process of application in the High Court for a writ of *certiorari* to test the legality of the expenditure, seem to us to render it highly improbable that objection would be made to the proposal to charge the cost of calendaring, compiling, &c., of local records on the borough fund.

585.—Can R.D.C. Raise a Loan by Borrowing in Small Sums Locally?—Has a rural district council, governing a population of 45,000, power to raise money (say, £100,000) for sewerage works by means of small loans from local aud other persons, on the lines adopted at Middletou and elsewhere?—"S."

Generally speaking, the borrowing powers of local authorities, including rural district councils, are subject to the sanctioning authority of the Local Government Board. In this case the authority of the L. G. B. would in the first instance be required, under Sec. 233 of the Public Health Act, 1875, to empower the R. D. C. to raise tho sum of £100,000, unless the council is "possessed of land, works, or other property, for the purposes of the disposal of sewage," in which case, in pursuance of Sec. 235 of the same Act, the council may borrow money without further authorisation on the credit of its sewage land and plant. Once the necessary authority or power has been obtained, it is competent to the council to raise the money required from private persons, ratepayers, and others in the district, in small sums. It seems to us, however, that such a method of raising a large sum of money would not be found to be so practically convenient in a rural district as it may prove, and, we believe, has proved in the case of boroughs.

586.—PETROLEUM ACTS Qualification of Inspectors. Would you kiudly state what special qualification is required for inspector of Petroleum and Explosives Act? I am a shipwright by trade.—"H. E. A."

We presume our correspondent refers to the Petroleum Acts of 1871 and 1879. The authorities which deal with the administration of these Acts are—in London, the City Corporation and the London County Council; in boroughs and towns outside the metropolis, the borough councils or district councils; and in harbours, the harbour authorities. These bodies may assign duties under the Acts to officers appointed by them, and the qualification of such officers and inspectors would in every case be a question for the determination of the local authority appointing to a particular vacancy. Perhaps an application to the London County Council might obtain in response definite information as to any appointments likely to be vacant, and the conditions under which such appointments are made in the metropolis, exclusive of the City.

RECENT DECISION OF THE HIGH COURT.

Diversion of Highway Notices to be Affixed at each End of Highway "Rex v. Kent Justices."

In this case the question arose as to whether the 28 days' notice required by Sec. 85 of the Highways Act, 1835, in connection with proceedings before justices for the diversion of a highway, applied so as to require that the notices that must be fixed up at each end of the highway should be fixed 28 days before the issue of the justices' certificate under which the highway may be closed. The Court of Appeal now held (overruling the decision of the Court below), that although the other requirements of Sec. 85 of the Act would be satisfied only by notices being affixed on the church doors of the proposed diversion of the highway on four successive Sundays, and by inserting the notice in a weekly newspaper for four successive weeks, the notices posted at each end of the highway need not necessarily be posted up 28 clear days before the issue of the justices' certificate.

PAVING WORKS.

SHOULD THEY BE PAID FOR OUT OF LOANS OR RATES?

HAVING regard to the large aggregate charge for interest incurred by those London borough councils whose practice it is to borrow money to defray the cost of paving works having a short life, the County Council's Finance Committee has sent letters to the authorities concerned asking them to consider whether paving works, having a life of less than ten years, should not be paid for out of the rates of the year in which they are undertaken, rather than by the creation of short term loans, and pointing out that the equalisation of the charge on the rates for such works could be accomplished, without any payment in respect of interest, if arrangements were made for the expenditure of approximately the same amount each year on such works.

The following borough councils concur in the proposal:—

BETHNAL GREEN.—It is its practice to act in the manner suggested.

HAMMERSMITH. — Is in favour of the principle.

HAMPSTEAD.—Will adopt the suggestion as far as possible.

HOLBORN.—Has never borrowed for these purposes, and is in cordial agreement with the suggestion.

ST. MARYLEBONE.—Has never borrowed for these purposes.

ST. PANCRAS.—All paving in the last year or two has been paid for out of rates, and the borough council proposes, as far as possible, to continue this practice.

The following councils concur, to some extent, in the suggestion:—

CHELSEA.—During the past half-year the course suggested has been adopted.

GREENWICH.—Considers it desirable to avoid borrowing for paving works having a life of less than 10 years. Before incurring a loan, it thinks that the borough council should be satisfied that the saving in repairs of the road during the life of the paving will be, at least, equal to the burden of the loan.

ISLINGTON.—Considers that the proposal can only be applied in districts where large paving works, principally renewals, are continuously in progress, and states that all the paving loans raised by the borough have been for conversion of macadam into permanent pavement, and not for renewals.

KENSINGTON.—Charges renewals of wood paving to rate, but borrows for changing macadam to wood.

LAMBETH.—Has decided that the amount included in the annual estimates for paving works to be defrayed out of loans shall not, during the next three years, exceed the amount falling due to be repaid in each of those years, and, further, shall not be in excess of the amount allocated to repairs of roads and paths under revenue estimates for each of those years. Paving work of the nature of renewals will, as far as practicable, be paid for out of rates.

SOUTHWARK.— Provides an approximate amount every year in estimates for paving—this year £8,000 has been provided. Requirements beyond this amount are raised by loans.

STEPNEY—Considers the suggestion has been adopted by the inclusion of a sum in the annual estimates equivalent to 1d. rate.

WANDSWORTH—Is inclined to charge to rates the cost of temporary improvements of the value of £4,000 and under, whilst borrowing, as hitherto, for more costly ones.

WOOLWICH—Proposes that any future expenditure on paving where the amount does not exceed £1,000 shall not be made the subject of a loan, and that when a paving loan is taken up the period applied for shall be reduced to—granite, ten years; wood, five years.

These borough councils appear to be in sympathy with the suggestion, but do not see their way to adopt it:—

BATTERSEA. — Has borrowed nothing for paving with a life of less than ten years.

BERMONDSEY.—Will have the matter before it again shortly.

PADDINGTON.—Considers it carries out its work as economically to the ratepayers as possible; points out that its loans are repaid in shorter terms than those usually allowed, and that the outstanding debt of Paddington compared with its rateable value is the lowest of any borough in the west end of the metropolis.

STOKE NEWINGTON.—Present charges in respect of loans are too high to allow its adoption of course proposed, but approves the principle.

The Camberwell Borough Council expresses no opinion.

The following boroughs have postponed consideration of the matter, but will bear it in mind in future:—

FINSBURY AND FULHAM. — Do not see their way to take any action at present.

HACKNEY.

LEWISHAM.

POPLAR. — Considers it has not unduly borrowed for paving, but has deferred consideration of the suggestion until the next loan for paving works is required.

The borough councils which do not see their way to adopt the proposal are:—

DEPTFORD —Does not consider that the course suggested is of practical application, as a long street might have to be paved in sections, and the street closed each time. The borough council thinks that it should have a free hand in the matter.

SHOREDITCH.—Considers that the suggestion would place a double burden on present ratepayers, owing to outstanding loans.

No reply has yet been received from the Westminster City Council.

On the whole, the Finance Committee thinks that the Council may be satisfied with the evident desire of the majority of borough councils to refrain, as far as possible, from increasing their indebtedness in respect of these short-lived paving works.

LABOUR AND COUNCILS' CONTRACTS.

THE Metropolitan Borough Council of Bermondsey has set an example to other boroughs by passing a resolution at its last meeting which is substantially a copy of the L.C.C. Trade Union Clause. It will be a substitute for the present unsatisfactory clause, inserted in the Council's contracts, as follows:—"I undertake and agree to pay trade union rate of wages to workmen, and to labourers a minimum rate of wages of sixpence per hour."

The newly adopted clause lays down, with very great clearness and detail, rates of wages and overtime wages—those "recognised by associations of employers and trade unions in the district"—hours of labour, sub-contracting, &c. In case of any breach by the contractor of any of the stipulations, it "shall be lawful for the Council to determine this contract, and the contractor shall be liable for any extra expense involved in completing the work."

SUNDAY OPENING OF LIBRARIES.

THE Westminster City Council on Tuesday decided against the opening of the public libraries within its jurisdiction on Sunday. As a reason for this refusal, it is stated that no evidence of any general desire for such opening has been given, and, having regard to the expense likely to be entailed, and the little success attending Sunday opening in other metropolitan boroughs, the Council does not feel justified in making such a change. The first two reasons are legitimate, but the third is inadequate and misleading. Of the 20 London boroughs having public libraries, 14 sanction Sunday opening; and, though the success is doubtful in some of these, it is no sense so in the majority, where the privilege of using the libraries is fully made use of by the people.

ABOUT BOOKS.

SANITARY LAW.*

THIS little book consists mainly of a summary of the chief statutory enactments and regulations of the Local Government Board affecting sanitary matters and the public health, particularly those which concern medical officers of health. Amongst other subjects dealt with, are sewers and drains, disinfection, slaughterhouses, mortuaries, and factories and workshops. The relevant provisions from the Public Health Acts, the Canal Boats Acts, the Sale of Food and Drugs Acts, and other Acts affecting sanitary law, are summarised. We note, however, that the author, in dealing with the Housing of the Working Classes Act, 1890, omits any reference to the important later Housing Acts of 1900 and 1903 respectively. A defect in the work is involved in the omission of any allusion to the Factory and Workshops Act of 1901, while particulars are given of the Acts of 1878 to 1895, as if such Acts were in force, whereas they have all been repealed (with the exception of a very few sections) by the seventh schedule to the Act of 1901. The Infant Life Protection Act, 1872, is also summarised, and dealt with as though still in force, whereas it has been repealed by Sec. 18 of the Infant Life Protection Act, 1897.

REPORTS OF LEGAL DECISIONS ON THE CONSTRUCTION AND MAINTENANCE OF BUILDINGS.†

WE have received for review the first number of a new series of law reports of cases decided in the Superior Courts bearing on the construction and maintenance of buildings. The series is intended largely for the use of architects and surveyors, and is compiled by a Fellow of the Royal Institute of British Architects, aided by a legal editor. This part includes cases on the London Building Acts, the Public Health, and the Factory and Workshops Acts, all of which concern local authorities, as well as cases more directly affecting private persons, such as those on light and other easements, landlord and tenant, and building contracts. Comparing this work with other law reports, we note the introduction of certain new and original features. The most striking and useful of these is the insertion of plans and photographs illustrating points raised before the court. A preface of "Legal Notes," the text of the proposed new bills affecting the easement of light and the London Building Acts, and a double index—one part based on the chronological and the other on the alphabetical system—make up the other new features of these Reports. The letterpress, paper, and general arrangement are admirable, and it may safely be said that "The Architects' Law Reports" can challenge comparision with any other set of Law Reports published.

PROFIT FROM WASTE.

AT the Clitheroe Town Council meeting last week a letter was submitted from a man offering 20s. a year for the privilege of getting what he can from the local refuse tip, with the exception of rags. The Council decided not to entertain the offer. The man was recently summoned for removing iron, bottles, and other waste from the tip, and he then said that it was surprising what a good living could be made in this way.

THE Dublin Corporation, on Monday, refused, by a majority of forty-nine votes to fourteen, to rescind a resolution adopted some time ago reducing the salary of the Lord Mayor from £3 687 to £1,687.

*Aids to the study of "Sanitary Law." By Harry Critchley, M.D., D.P.H. (Baillière, Tindall and Cox, 8, Henrietta Street, Covent Garden. 2s.)

†"The Architects' Law Reports" (illustrated), compiled by Arthur Crow, F.R.I.B.A. Legal Editor, A. F. Jenkin, Barrister-at-Law. (18, Great Prescott Street, London. 5s.)

Official Advertisements.

BOROUGH OF WANDSWORTH.

TO CONTRACTORS AND OTHERS.

THE Council of the Metropolitan Borough of Wandsworth is prepared to receive TENDERS for the EXECUTION of WORKS and the SUPPLY of MATERIALS from the 31st March next, for one, two, or three years, as per forms of tender, at the option of the Council (with the exception of tenders for the supply of provender, which are to be for six months only), viz.:—

1 Blue Bricks.
2 Cement.
3 Coal and Coke.
4 Disinfectants.
5 Granite or other Stone.
6 Gravel and Flints.
7 Harness and Stable Requisites (Eastern District).
8 Norway Granite Kerb.
9 Printing.
10 Provender.
11 Scavengers' Brooms and Tar Brushes.
12 Sewermen's Clothing.
13 Sharpening Tools.
14 Signwriting.
15 Stationery.
16 Stable Requisites (Western District).
17 Stoneware Pipes, &c.
18 Street Lamp Columns, Lanterns, &c.
19 Thames Ballast and Sand.
20 Tools, &c.
21 York Paving.

Samples (not more than 20 lbs. in weight) of the granite or other stone proposed to be supplied are to be delivered here on or before Monday, the 9th January next, at the cost of the persons tendering.

Persons tendering must in the case of all workmen employed by them pay wages at not less, and observe hours of labour not greater, than the rates and hours recognised by the associations of employers and employees, and in practice obtained in the district where the work is to be executed. The specifications and forms of tender may be obtained at these offices, between the hours of 10 a.m. and 4 p.m. (Saturdays 10 till 1).

Tenders (each enclosed in a separate envelope) are to be delivered, under seal, at the Council House, endorsed "Tender for ———," on or before Monday, the 9th January next, and must contain the names and addresses of two responsible persons who are willing to join the contractor in a contract for the due execution thereof.

No tender will be received unless it is made upon one of the printed forms provided for the purpose.

The Council does not bind itself to accept the lowest or any tender.

HENRY GEORGE HILLS,
Town Clerk.

Council House, Wandsworth, S.W.
13th December, 1904.

BRENTFORD URBAN DISTRICT COUNCIL.

APPOINTMENT OF CLERK OF WORKS.

THE Council are prepared to receive Applications for the Appointment of a CLERK OF WORKS for the Brentford Market Extension and Underground Convenience Works at Kew Bridge. The salary will be £4 4s. per week, and the person appointed will be required to enter upon his duties immediately the works are begun.

Applicants must be thoroughly experienced and practical men, able to put in levels, set out, and measure up work. The person appointed will act under the direction of the Surveyor to the Council. Applicants (who must be between the ages of 35 and 50) are to send in their applications in writing, with full particulars, and copies of testimonials not to exceed three in number (which will not be returned), sealed, at the Office of the Clerk to the Council, 209, High Street, New Brentford, on or before Tuesday, the 3rd proximo, not later than 12 o'clock, marked "Application for Clerk of Works," but applicants will not be required to attend the Council personally unless and until they receive notice so to do; and canvassing, either directly or indirectly, will disqualify any applicant.

By order.
STEPHEN WOODBRIDGE,
Clerk.

Brentford.
21st December, 1904.

SOLICITOR (30), experienced as manager in conveyancing and Common Law, &c., desires Post in municipal office. Expert shorthand writer. Three years in town clerk's office. Excellent references. "Trois," MUNICIPAL JOURNAL, 12, Salisbury Square, Fleet Street, E.C.

Official Advertisements.

COUNTY BOROUGH OF GREAT YARMOUTH.

JARRAH OR KARRI PAVING BLOCKS.

THE Council of the above-named Borough are prepared to receive TENDERS for the SUPPLY of 1,250,000 Jarrah or Karri Paving Blocks.

Specifications and form of tender can be obtained at my Office as under.

Tenders, on the form and in the envelope supplied therewith, are to be delivered at the office of W. Edgar Stephens, Esq., Town Clerk, Town Hall, Great Yarmouth, not later than noon of Wednesday, January 4th, 1905.

No guarantee is given that the lowest or any tender will be accepted.

By Order,
J. WM. COCKRILL, M.Inst.C.E.,
Borough Surveyor.

Town Hall,
Great Yarmouth.
December 21st, 1904.

METROPOLITAN BOROUGH OF FULHAM.

TO CHIMNEY CONTRACTORS.

THE Council of the Borough of Fulham is prepared to receive TENDERS for the CONSTRUCTION of a Brick CHIMNEY SHAFT, 180ft. high, with 10ft. flue, on a prepared concrete foundation, at the Council's Wharf, Townmead Road, Fulham.

On receipt of a deposit of three guineas (which will be returned when a bona-fide tender is sent in) quantities can be obtained, and the specification and drawings seen, at the Office of Mr. Francis Wood, A.M.I.C.E., F.G.S., Borough Engineer and Surveyor, Fulham Town Hall.

The Council does not bind itself to accept the lowest or any tender, and the contractor will be required to observe the trade union conditions as to wages and hours of labour in the London district, and give securities in the amount of £500.

Tenders to be deposited with the Town Clerk before 4 p.m. on January 18th, 1905.

By Order,
R. M. PRESCOTT,
Town Clerk.

Town Hall,
Fulham, S.W.

COUNTY BOROUGH OF BURNLEY.

TOWN CLERKSHIP.

THE Town Council of Burnley invite Applications from Solicitors for the office of TOWN CLERK.

The salary will be £700 per annum, to be increased, if the services rendered be satisfactory, to £750 at the end of two years, and afterwards by yearly increments of £50 to £900 per annum. The Corporation provides offices, clerks, stationery, and other requisites.

The gentleman appointed will be required to devote his whole time to the duties of the office, and must not engage in private practice; he may, however, hold the office of Clerk to the Burnley Joint Hospital Board, if appointed thereto by that authority.

Canvassing is strictly prohibited.

Particulars of the conditions of appointment, and forms of application, may be obtained from the undersigned.

Last day for sending in applications—Saturday, 7th January, 1905.

A. STEELE SHELDON,
Town Clerk.

Town Hall, Burnley,
20th December, 1904.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM,
Edited by ROBERT BLATCHFORD.

You should read "THE CLARION" for reliable information as to

MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,

DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century,

You Must Read "THE CLARION."

Send for specimen copy to "THE CLARION" Office.

72, FLEET STREET, LONDON, E.C.

Official Advertisements.

THE WARD OF CRIPPLEGATE WITHIN.

AT a Court of Wardmote holden in and for the said Ward, at Brewers' Hall, Addle Street, within the said Ward, on Wednesday, December 21st, before the Right Worshipful Sir Henry Edmund Knight, Alderman of the Ward, the following gentlemen were returned at a precinct meeting to represent the Ward in the Court of Common Council:—

Sir Robert Hargreaves Rogers.
Richard Stapley, Esq.
George Briggs, Esq.
William Oatley, Esq.
Alexander Tillie, Esq.
Thomas Henry Wye, Esq.
Alfred Edward Palmer, Esq.
Thomas Francis Rider, Esq.

No other person being nominated, the foregoing were declared to be duly elected.

It was moved by Mr. HICKS, duly seconded, and carried unanimously—

"That the hearty thanks of this Wardmote be given to its representatives on the Court of Common Council for the admirable manner in which they have during the past year discharged their important duties, and for their unremitting attention to all matters affecting the Ward and Corporation."

Mr. WYE returned thanks.

Sir ROBERT ROGERS moved, Mr. RIDER seconded, and it was duly carried—

"That the Bill promoted by the Corporation for the purpose of providing satisfactory means of escape for those employed or residing in buildings in case of fire is approved by this Wardmote, and should be pressed forward by the Corporation for confirmation by Parliament.

Mr. TILLIE moved, Mr. RIDER seconded, and it was duly carried—

"That the proceedings of the Wardmote be advertised in the *Times*, *City Press*, *Citizen*, *Local Government Journal*, and *Municipal Journal*."

Mr. BRIGGS moved, Mr. HICKS seconded, and and it was duly carried—

"That the best thanks of this Wardmote be given to its Alderman, Sir Henry Edmund Knight, for his admirable and dignified direction of these proceedings; and further, this Wardmote renews the expression of their Alderman's long and eminent services to the Ward and to the Corporation."

It was moved by Mr. PALMER, seconded by Sir ROBERT ROGERS, and carried unanimously

"That this Wardmote warmly thanks the Master Wardens and Court of Assistants of the Worshipful Company of Brewers for again granting the use of their Hall for the purposes of this Wardmote, and directs the Ward Clerk to forward a Copy of this resolution to the Clerk of the Company."

CHARLES WALTON SAWBRIDGE,
Ward Clerk.

No. 68, Aldermanbury,
London, E.C.

COUNTY BOROUGH OF SUNDERLAND.

ELECTRICITY DEPARTMENT.

TO MAKERS OF WOODEN COOLING TOWERS.

THE Corporation of Sunderland are prepared to receive TENDERS for the SUPPLY of One WOODEN COOLING TOWER, capable of Cooling the Circulating Water for a Surface Condenser dealing with 30,000lbs. of steam per hour.

The specification and form of tender can be obtained on application to the Borough Electrical Engineer, Mr. John F. C. Snell, M.Inst.C.E., at his Office, Town Hall, Sunderland, on payment of a deposit of £1 1s., which will be returned on receipt of a bona-fide tender.

Sealed tenders, addressed to the "Chairman of the Electricity and Lighting Committee," Town Hall, Sunderland, must be delivered at my Office not later than 12 o'clock at noon on Friday, the 30th day of December instant. Tenders to be endorsed "Tender for Cooling Tower."

The Corporation do not bind themselves to accept the lowest or any tender.

FRAS. M. BOWEY,
Town Clerk.

Town Hall, Sunderland.
13th December, 1904.

INSTITUTE of MUNICIPAL TREASURERS and Accountants' Examinations, June, 1905. Gentlemen coached in class or by correspondence in Law Section. For terms address "Coach," MUNICIPAL JOURNAL Offices, 12, Salisbury Square, Fleet Street, E.C.

TEMPERANCE PERMANENT
BUILDING SOCIETY,
4, Ludgate Hill, London, E.C.

A Safe Four Per Cent. Investment.
Free from fluctuations, and without deduction of Income Tax.
CAPITAL AVAILABLE WITHOUT DEPRECIATION
without expense and at short notice when required.
DEPOSITS RECEIVED AT THREE PER CENT.
LARGEST RESERVE
of any Building Society in the United Kingdom.
EDWARD WOOD, Manager.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.
Surrey House, Victoria Embankment.
LONDON, W.C.
Opposite the Temple Station, Metropolitan District Railway.
BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.
BONDS are also issued on Behalf of INLAND REVENUE COLLECTORS.
REDUCED PREMIUMS from 3s. per cent
Bonds approved under Seal of Local Government Board and Inland Revenue Department.
Proposal forms and full particulars on application to the Secretary SHIRLEY FUSSELL.

BIRKBECK BANK
ESTABLISHED 1851.
2½ per cent. INTEREST
allowed on Deposit Accounts Repayable on Demand.
2 per cent. INTEREST
allowed on Current Accounts on minimum monthly balances when not drawn below £100.
ADVANCES MADE.
STOCKS & SHARES BOUGHT & SOLD.
Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C.

EATON & KNAPP,
BOILER SETTERS & FURNACE BUILDERS,
Repairs in Boiler Brickwork & Dust Destructors of all kinds.
ESTIMATES FREE.
23, CLACTON ROAD, WALTHAMSTOW.

SULPHUME
(SULPHUR DIOXIDE)
FOR
ROOM DISINFECTION
As adopted by the WAR OFFICE, and numerous HOSPITALS, CORPORATIONS, and other SANITARY AUTHORITIES.
MAKERS AND PATENTEES,
A. BOAKE, ROBERTS & CO., Ltd.,
STRATFORD, LONDON, *ENGLAND.*

LIGHTNING CONDUCTORS.
J. LEWIS,
5 and 6 Great Winchester Street, London, E.C.
TELEPHONE NO. 3053 CENTRAL.

A HISTORY OF THE ENGLISH POOR LAW. . .
A RE-ISSUE OF
A STANDARD WORK
AT ONE-THIRD OF
THE ORIGINAL PRICE.
Vols. I. & II. NICHOLLS. 10s. 6d. net.
Vol. III. MACKAY. 7s. 6d. net.
Or the 3 vols. complete,
15s. net.
P. S. KING & SON,
ORCHARD HOUSE, WESTMINSTER.

The Cream of Cocoas.
EPPS'S
Contains all the nutriment
COCOA
of the Choicest Nibs.

MUNICIPAL JOURNAL
FRIDAY, DEC. 23, 1904.

NOTES AND COMMENTS.

Liverpool Federation.

IN spite of semi-official denials given at the last meeting of the Liverpool City Council, it will be seen from our issue this week that the proposed scheme for the federation of Liverpool, Birkenhead, Bootle, and adjacent districts, is something more than the misty dream several councillors described it. The town clerk has prepared a memorandum on the subject, which we publish, pointing out the advantages that are to be derived from federation, and indicating means by which the desired object may be achieved. The Liverpool Parliamentary Committee is already proposing to confer with the authorities concerned, and we hope the committee's action will be approved, and that the result will be a scheme acceptable to all the parties. It is hardly necessary for us to point out that any federation plan must be a voluntary and not a compulsory one. Parliament has already laid down this principle in unmistakable terms, and it would be folly, from the public standpoint, as well as the worst of tactics, for one of the boroughs to attempt to force any particular scheme upon the others. The town clerk's memorandum, therefore, must not be construed as the official scheme of the Liverpool Corporation, but it shows unmistakably that federation can be effected on equitable terms, and without the loss of dignity or authority to the parties concerned. We hope for the success of this federation scheme on the broad, general ground that the development of the local government system has reached a stage at which it is absolutely essential, for the sake of efficiency, economy, and self-protection, that the administrative area shall be made as wide as possible. If Liverpool sets an example in this matter, as it has done in others, we may see the real commencement of a new municipal movement whose good effect upon our system of local government will be incalculable. We sincerely trust that the representatives of the various districts affected by the Liverpool scheme will bear in mind during their deliberations the big ideal that is at the base of this federation scheme, and not regard it merely from a parochial standpoint.

Trams and Trading.

ALDERMAN Sir W. TRELOAR, of the Corporation of the City of London, has evidently been taking lessons from the secretary of the Industrial Freedom League. He said at a City wardmote on Wednesday that—

> One of the chief reasons why the trade of the country had been so bad was the fact that so many municipalities were spending the money of the ratepayers recklessly, and were borrowing extravagantly for the purpose of embarking upon schemes and enterprises which had no certainty or even chance of future success.

This is a curious argument. It is generally understood that trade is created by new enterprises, and if this be so, it evidently does not matter, from the trade standpoint, whether the enterprises are carried out by municipal bodies or by private companies. Trade is trade, whether it be "municipal" trade or company trade. What Sir William objects to, however, is the municipality, not the trade. His point of view is clear at once when we remember that he made the observations we have quoted during a speech whose principal object was to protest against the London County Council running a tramway across Blackfriars Bridge. Now, the only people who gain from the absence of this tramway are the omnibus companies. The general body of the public suffer. Sir William, therefore, is merely supporting the omnibus companies against the public interests, which is a curious thing for a public representative to do under any circumstances.

Spade Work for Officials.

MR. A. ASPINALL, of Leeds, writes commending the suggestion made in our last week's issue, that officials should endeavour to make clear to editors and representatives of local newspapers the facts concerning municipal enterprise, thereby counteracting to an extent the influence of the Industrial Freedom League and allied agencies. Mr. Aspinall goes on to say that work such as is proposed is specially necessary in cities like Leeds:—

> Where the whole municipal machinery is controlled with a view to securing votes at the November elections and the votes are given to the nominees of the political party irrespective of the merits or demerits of the opposing candidates.
>
> From the rigid silence kept by officials here, I assume that they are under strict orders not to write to the Press, and of course all challenges or criticisms are allowed to go by default.

One of the greatest drawbacks of the party system applied to municipal affairs is that reforms are not prosecuted by reason of their intrinsic merit so much as for motives of party expediency. It is not the fault of the men, but of the system, and the latter should be changed

so that principles and not parties should be the supreme issues at municipal elections. We expect our correspondent is right in thinking that the Leeds officials are under strict orders not to write for the Press. The rule is one which obtains all over the country, with a few exceptions; but we think it might be modified, at least in the direction of allowing officials to place information before the public. To take up the cudgels on behalf of a particular party is quite another matter, which we should not for a moment advocate. The misunderstanding of the municipal position in almost every case is due to the absence of information. No harm could be done by allowing officials to acquaint the editors of local newspapers of the real facts of the case, and then the public would be in a position to judge for themselves.

Another Scheme.

OUR correspondent outlines another scheme for stimulating interest in municipal life. which we think is also worthy of sympathetic consideration. His suggestion is that each municipality should provide a special room for lectures, essays, and discussions on any subjects relating to municipal administration, all ratepayers being entitled to attend free, or with a nominal subscription of about a shilling per annum. This would form a common meeting place for men of all shades of opinion, but at the same time free from ties of politics and creeds. A small reference library of works bearing on municipal affairs generally (including Poor Law administration), such as the "Municipal Year Book," "Gas World Year Book," "Waterworks Year Book," and others dealing with tramways, electric lighting, &c., along with copies of the annual abstracts of accounts for about a dozen of the largest cities in the kingdom, would be a valuable acquisition to diligent students, and place within the reach of all ratepayers sound, useful information. The room could be used at any time for discussion. but once a week, say, a set debate could be arranged on some topic of interest to come before the next council meeting, which could be fully thrashed out in five-minute specches, with a chairman, preferably a member of the council committee, which has the subject-matter in hand. By this means much useful information could be diffused, many false ideas dissipated, and, taken altogether, would be a much better training-ground for future councillors or guardians than any agency now in existence. The suggestion appears to us an admirable one, and there should be no difficulty in carrying it out. There should be at least half-a-dozen men on every council in the kingdom who would give their energies towards making such a scheme a success. We invite our readers to forward us their views on the subject.

Should Surveyors Design?

THE Royal Institute of British Architects is circularising local authorities on a subject which is often being discussed in professional circles. The Institute objects to engineers and surveyors being employed on works of an architectural character, and urges upon municipal authorities:—

(*a*) That architectural work be not placed in the hands of engineers or surveyors.

(*b*) That where it is deemed desirable for architectural work to be carried out by a municipal official, such official shall be required to have passed the qualifying examinations of the Royal Institute of British Architects.

(*c*) That the work of an official architect be restricted to structures of secondary importance, and that all buildings of a monumental character be entrusted to independent architects, to be selected in such a way as may seem best to the local authority.

The Royal Institute of British Architects is a very honourable and useful professional body, but it primarily exists to advance the interests of its members. So far as we have been able to discover, it does not in its circular produce any cases where work has suffered, either on the ground of architectural pretensions or of economy, by being designed by the municipal surveyor and engineer instead of being given to an outside architect with a large fee. It is already the practice of local authorities to entrust most buildings of a "monumental character" to outside architects, although we see no roason why even this course should be observed in those cases where local authorities possess surveyors of sufficient imagination and capacity to perform the task. There are many reasons, apart from purely architectural considerations, why municipal surveyors should design their own buildings. They appreciate the local requirements more than any outside architect could ever do, and should consequently be able to produce a more useful building. We do not think that, on the whole, municipal architecture compares unfavourably with other architecture. Municipal buildings of all descriptions, as a general rule, have good architectural reputations wherever they are found.

The Clyde Trust.

GLASGOW is up in arms at the new proposals of the Clyde Trust. The Provisional Order which has been published this week empowers the Trust to remodel its constitution on the lines of the Mersey Dock Board, and virtually deprives the Corporation of any control whatever of harbour management. Instead of the Trust being composed of ten members nominated by the Corporation, two each by the Chamber of Commerce, the Merchants' House, and the Trades' House, and nine elected by the shipowners and "ratepayers," these last would under the new scheme elect 21 members, leaving only four (who need not be councillors) to be nominated by the Town Council. The qualification to vote would be the payment of £10 or upwards per year of dues, and any person paying £25 yearly would be eligible to become a trustee. In a word, the independence and communal character of the Trust are to be abolished, and the interests of the community as a whole sacrificed to those of a section. The shipowners and payers of dues are to have full control of an enterprise that has been established by the whole body of Glasgow's citizens. For years the traders have been working up to the reactionary proposals that are now brought forward. Prior to 1840 the harbour of Glasgow was directly controlled by the Town Council, although by the Act of 1825 five additional persons interested in the trade of the river, and nominated by the Council, had been associated with them in the management of the Trust. The development of the navigation of the river down to this period was entirely carried out by the Town Council, and a large expenditure was made, chiefly out of the Common Good, and from taxes levied on the inhabitants. By the Act of 1840 the constitution of the Trust was again changed, and the number of trustees increased to 33, of whom 23 had seats in the Town Council, the remaining 10 being representatives of the Chamber of Commerce, the Merchants' House, the Trades' House, the Barony of Gorbals, and the Burghs of Calton and Anderston. This continued till 1858, when a new Act was obtained, and the Trust was re-constructed. By this Act the number of trustees was reduced from 33 to 25. The burghs having been absorbed by the city, their separate representation disappeared, but the representation of the Three Houses was continued, with this variation, that one of the three representatives of the Merchants' House was withdrawn, and given to the Chamber of Commerce, which formerly had only one. These Houses were, along with the Town Council, supposed to represent the trade and commerce and general interests of the city, as distinguished from the sectional interest of the shipowners and payers of harbour dues. They and the Town Council together were given a representation of 16 out of the 25 members, and a preponderating voting power in the Trust.

What Other Places Do.

IN view of the proposals of the Clyde Trust, the practice of similar bodies in other parts of the Kingdom is interesting. Of the 38 members of the Thames Conservancy only seven are elected by the shipowners and traders. Under the Bill now being promoted by the London County Council, the Council retains 24 members out of a total of 40, and the Bill will be dropped at once if this vital provision is defeated. The Mersey Dock Board consists of 28 members, and all but four are elected by the harbour ratepayers. On the Tyne the shipowners and traders elect 15 out of a total of 33, and on the Tees they return 8 out of 21. In Ireland the constitution of the Harbour Trusts is rather different, traders being defined as occupiers of property rated at £20 for the poor. Keeping that explanation in view, the Dublin Board consists of 28 members — the Lord Mayor, six town councillors, and 21 shipowners and traders; and the Belfast Board of 22 members is—with the single exception of the Mayor—entirely elected by the shipowners and the owners of property. Coming to Scotland another difference of constitution is met with. In Dundee the 32 harbour trustees are made up of the Lord Provost, seven Corporation members, and 24 elected members. Leith has a most extensive constituency, its 15 Commissioners being returned—three each by the Edinburgh and Leith Corporations, one each by the Edinburgh Merchant Company, Edinburgh Chamber of Commerce, and Leith Chamber, two by the shipowners, and four by the ratepayers. In Aberdeen the Town Council has 19 representatives, while the remaining 12 are shipowners and payers of dues elected by burgesses and guilds. The modern tendency in the constitution of these harbour authorities is to make the representation as wide as possible, recognising that a Port is not established by the shippers and traders, but by the whole of the community which it serves. There is always the possibility, not now imminent on the Clyde, but certain in London, that the rates may be called upon to contribute towards the enterprise, and this is a fact that should always be borne in mind. A harbour in which trade is carried on is as much a public service as a tramway, and it is in accordance with the progressive tendency in regard to these matters that the public shall have a larger, and not a decreasing, share in the control. We hope the Glasgow Corporation will strenuously resist this attempted trade encroachment, and that it will be vigorously supported by ratepayers in its action.

POOR LAW OUTLOOK.

Lord Crewe, Chairman of the State Children's Association, Passes Strictures on the New Emigration Scheme for the Emigration to Canada of Poor Law Children. A Reply. Poor Law Children are Not Less Poor Law Children Because of their Being Drafted Out by a Religious Agency. Scattered Farms Compared with Scattered Homes, and the Reception of the Latter in England. Red Tape at Hampstead. A Year's Progress at Hackney.

THE scheme of emigration to Canada of Poor Law children, put forward by Mrs. Close, and outlined in the *Municipal Journal* of the 9th inst., has roused widespread attention. The London Chamber of Commerce has formally discussed the matter, and the State Children's Association is taking it up. This week we have received from Lord Crewe, chairman of that association, a letter which, though welcoming any efforts to draw public attention to the emigration to Canada of suitable rate-supported children, points ont that nothing could be more detrimental to the success of emigration than the sending of Poor Law children, as such, to the Dominion, and dealing with them there in large groups separated from the normal population.

Objections to the New Emigration Scheme.

❦ ❦ ❦

THE great virtue of emigration, his lordship points out, as now adopted lies in the merging of Poor Law children in the ordinary Canadian population. Thus before they reach maturity their origin is forgotten, and they take that place in the Commonwealth which their characters and talents enable them to win:—

"Widespread Objection."

> Canadians have a widespread objection to receiving children from workhouses. Everything must be avoided, therefore, which could stamp them in Canadian eyes with the Poor Law connection it is the desire of all emigration experts that the children should leave on this side the Atlantic.

Let us grant at once that the Canadian attaches an undue—some would say snobbish—importance to the fact that a child has been supported by the rates, instead of being reared by its parents or private guardians. Well, if he do, will he be a whit more likely to take a State child because it comes under the influence of a religious agency for a few weeks, or at most, a few months? A child is not taken into the home of a Canadian farmer without some inquiry into its antecedents. In a word, it is not possible, with adherence to truth, to leave all so-called Poor Law taint at this side of the Atlantic.

❦ ❦ ❦

THIS is granting Lord Crewe's estimate of the disposition of the average Canadian to be correct. For our own part, we should be somewhat disinclined to think that the Canadian, whose broad democratic instincts and disregard of social distinctions are well known, would be capable of such nicety. But it will be noticed that Lord Crewe says the objection is to receiving children from "workhouses." Surely he does not designate isolated farms of 15 to 20 children, suggested by Mrs. Close, as "workhouses." If we understand the new scheme aright, it is that the Poor Law farms will adjoin or be in the neighbonrhood of ordinary farms, and not in aggregations as groups of cottage homes. It is said, we know, that to these Poor Law farms, whether they be isolated or stand amongst the ordinary Canadian farms, the finger of scorn will be raised. Granting for a moment that that be so, in like manner the finger of scorn may be said to be raised against an individual child in a Canadian farmer's home. But will the finger of scorn be raised against these Poor Law scattered farms? Is the finger of scorn raised against the Poor Law scattered homes in our English towns? Certainly not. When Sheffield essayed to start the scattered home movement in England precisely the same objection was made. But experience showed that when the homes had once been fairly started, and the prejudice of ignorance had been dispelled by experience, the neighbours not only did not taboo the children, but in many cases began to take a positive interest in them. And the English think far more about class distinction than do the Canadians.

"Workhouse Taint."

❦ ❦ ❦

LORD CREWE, as we know from his attitude in times past, believes that only private agencies are serviceable for the emigration of Poor Law children, though at the same time admitting the need for emigration. But judged by results, it would almost seem that the present methods have failed, for we find a tendency towards diminution in the number of children emigrated. Guardians are not enthusiastic on the advisability of sending the children to the Dominion. It is difficult to gauge the reasons for this hesitancy, but one certainly is the difficulty of supervision. This, indeed, is the *pons asinorum* of the emigration problem. It is generally admitted boards of guardians have difficulty in ensuring the welfare of their boarded-out children in England, even with a local committee of supervision and all the facilities supplied by accessibility and cheap locomotion, and they are very properly chary of sending small children thousands of miles away to a thinly-populated country. All who have studied deeply and on the spot the Canadian emigration question are of this opinion. Mrs. Virginia M. Crawford, of the St. Marylebone Board of Guardians, who recently visited Canada for the purpose of studying the matter first hand, told a representative of the *Municipal Journal*, on her return, that this question of adequate supervision was the "real crux of the problem," and added that in the far-off thinly-populated parts of the country, "constant supervision is, with the best intentions, a sheer impossibility."

Difficulty of Inspection.

❦ ❦ ❦

BUT if the movement towards emigration quicken, as we hope it ultimately will quicken, children will perforce be pushed further and further out into these remote regions, by the fact that the nearer suitable Canadian homes will be taken up. We must look to the future in a matter of this kind. There may be objections to the scattered farms of Mrs. Close's scheme, but there are very real dangers under present conditions. We do not regard her scheme as perfect, indeed it shows considerable signs of immaturity, particularly on the financial side, but we regard it as overcoming several difficulties. As the proposal is that boards of guardians should purchase or rent small farms of about 200 acres in "selected parts of Canada," it can be taken for granted that these selected parts will be well situated for purposes of inspection, and we give the word of warning that the inspection will have to be really thorough. In these scattered farms the children will be enabled to adapt themselves to the climate and customs of the new world, and grow up to supply the undoubted demand there is for older children in Canadian farms. If there be any doubt as to whether these children would be welcome, the reception already given to the project in Canada should effectually dispose of it.

What of the Future?

❦ ❦ ❦

WE have dealt at length with these objections to the new scheme, because we are convinced that they are mistaken and may thwart an effort, by no means perfect, but put forward as an honest and promising attempt for the extension of the undoubted benefits of emigration for Poor Law children. Any words of ours as to the great services Lord Crewe, as head of the State Children's Association, has rendered to Poor Law children, would be feeble and unnecessary: but we are convinced that his Lordship and the Association are mistaken in this opposition. In addition to the objections already referred to—and met, we trust, to some extent—Lord Crewe, in his letter to us, after pointing out that emigration, as at present carried out, is the least costly method by which Poor Law children may be individually cared for, proceeds:

The Question of Expense.

> But if, as Mrs. Close proposes, farms are to be rented or bought, even simple buildings erected, machinery, stock, and furniture purchased, officials secured at the high salaries given in Canada, and the children's maintenance and the up-keep of the farms paid for by English guardians out of English rates, the expenditure must be very greatly increased, and would probably approach that of the most expensive English system—the village community.

❦ ❦ ❦

WE will not attempt to deny that this may be so, but in this connection the following estimate of capital expenditure recently put forward is interesting:—

Another View.

CAPITAL EXPENDITURE (NEW BRUNSWICK).

Land, say 160 acres at £2	£320
House, 40ft. by 30ft., two storeys high, with kitchen 20 by 20 attached	600
Site	10
Two horses	60
Ten cows	100
Five pigs	20
Twenty sheep	20
Implements	160
Barns and all buildings	700
Total	£1,990

We must not be understood to pin our faith to the accuracy of these figures, but if they are to be relied upon at all, the expense of this proposed system of emigration is less than half as costly as the English cottage homes system, for the expense of thus providing for 20 children in England works out at about £5,000. This question of expense, however, though important, is not the most important aspect of the case, as Lord Crewe, we take it, would be the first to admit. The scheme is apparently within reasonable financial limits, and less than at least one system of treatment already established, and that is sufficient.

❦ ❦ ❦

THE Visiting Committee at the meeting of the Hampstead Board of Guardians has called attention to the "terrible waste" caused in the workhouse owing to the fact that most of the food had to be served out in regulation quantities to each inmate, irrespective of whether he or she could eat it or not. Especially was this the case with the potatoes, and the committee suggested that instead of carrying out the Local Government Board's regulation literally the potatoes should in future be served in dishes placed on the tables, so that the inmates might help themselves. The master of the workhouse was requested to report to the board on the practicability of adopting the suggestion. The clerk reminded the guardians that they were chiefly instrumental with the Chorlton Guardians in getting a similar alteration made in the regulations respecting the serving out of bread, in consequence of which an enormous saving was effected in every workhouse in the country.

Waste in Workhouses.

❦ ❦ ❦

IT is a common practice at the meetings of public bodies in the Hayfield district for the members to smoke during the transaction of business. At the meeting of the Board of Guardians this week a strong protest was made against it. Half a dozen members were enjoying their cigars when one of the guardians called the attention of the chairman to the growing practice of smoking, and he asked that it should be discontinued. He objected to the already vitiated atmosphere of the small room being made worse by smoke, and said it was very wrong. The complaint caused laughter, but the chairman said that no doubt the members would have respect for the feelings of the member, who had been seriously ill. The cigars were then extinguished.

Guardians' Meeting as "Smoker."

THE indiscriminate nature of much of the Scottish poor relief is becoming more widely known. We had recently to take Mr. Theodore Dodd, M.A., to task for holding the Scottish system up as an example to England. The matter has now come under the purview of the Local Government Board, at least so far as it concerns Glasgow, and the Board is reported as being

Example of Scotch Indiscriminate Relief.

> Convinced that the methods of the Parish Council have tended to increase rather than decrease pauperism in the city.

On Wednesday an official of the Board, with four supervisors who have the overlooking of various Scottish poor districts, visited the offices of the Parish Council, and made an exhaustive survey of the books of the relief department. They are, it is understood, to draw up a report, which will be laid before the governing authorities at headquarters. The indiscriminate giving of poor relief in Glasgow has led to much public discontent in the city, and there have recently been loud demands for stringent inquiry into the matter. The local supervisor has drawn up a list of sixty-two cases in which, in his opinion, relief should never have been granted. We trust that the investigation will not be confined to Glasgow.

A YEAR AT HACKNEY.

HOW THE POOR FARE IN THIS TYPICAL UNION.

THE Hackney Union, with its total population of 270,519, is doing good work for its numerous poor. The guardians firmly believe in the policy of making the inmates of their establishments comfortable, particularly at this time of the year. Comfortable quarters are provided for the deserving aged married couples, entertainments are given fortnightly in the workhouse during the winter months, and during the summer the aged inmates are taken, through the kindness of the Christian Community, by brakes to Epping Forest for a day's outing.

The Brabazon Employment Society provides interesting occupation for the inmates of the infirm wards of the workhouse who from old age or ill-health are unable to take part in the work of the house. The employments taught under the direction of the Society are:—knitting, crochet, embroidery, basket making, netting, straw work, and various kinds of employment. The learning aptitude is first tested, and then such work assigned as seems best fitted for each individual capacity.

Every provision is made for the efficient medical treatment and nursing of the sick, for whom a separate infirmary is provided, and upon special recommendation of the medical officer, and approval by the guardians, convalescent patients are sent to seaside convalescent homes, to benefit by the change of air.

The present accommodation for casuals proving inadequate, new casual wards, arranged on the cellular system, have been erected on a site a little distance from the workhouse, and will accommodate about 100 persons of this class.

The out-relief policy of the guardians is to grant adequate relief to deserving cases, and to strictly investigate each case for the detection of imposture; but, notwithstanding this, the certified number of the accommodation of the workhouse has been during the present winter exceeded by a daily average of about 100 persons, and the number of able-bodied males receiving relief at the present time is as under, viz.:—

Indoor 146, Outdoor 200,

being an increase of 46 indoor and 91 outdoor in the corresponding period of last year.

Special attention is given to the interests of the children chargeable to the guardians, and with a view to obviating the necessity for the admission of children who become chargeable to the workhouse, they are immediately admitted to the children's homes, and if likely to remain chargeable, transferred as soon as possible to the guardians' schools at Brentwood, Essex, or some other school or home best suited to their requirements, and where they will be properly educated and well cared for.

At the present time there are about 1,500 children chargeable to the guardians and maintained in institutions, as under, viz :—

(a) The nursery		76
(b) The infirmary		124
(c) The Brentwood Schools		444
(d) The Children's Homes, Sidney Road, Homerton		149
(e) The Strand Union Schools, Edmonton		122
(f) Special institutions of the Metropolitan Asylums Board for children suffering from ringworm	58	
Children suffering from ophthalmia	33	
Feeble-minded children	5	
Convalescent children	33	
Training boys for the navy	16	—145
(g) Special schools for blind, deaf and dumb, feeble-minded, epileptics, &c.		21
(h) Boarded-out		80
(i) Roman Catholic schools		49
(j) Imbecile asylums		56
(k) Fever hospitals		248
(l) Miscellaneous institutions		10
Total		1,524

At the Brentwood Schools many of the boys are taught to play brass and reed instruments, forming an efficient band. The school possesses a gymnasium, swimming bath, museum, and dairy farm. Technical instruction is given to the boys in carpentering, baking, painting, plumbing, tailoring, shoemaking, farming, gardening, and to the girls in cookery, dressmaking, needlework, housework, &c.

During the year, the guardians, under the provisions of the Poor Law Act, 1899, have assumed control of 48 orphans and deserted children; all rights and powers of the parents thereby become vested in the guardians until the children attain the age of 18 years. Ten boys have been emigrated to Canada, and 18 children boarded out under the care of the country boarding-out committees.

Owing to the inadequate accommodation of the guardians' establishments for children, new homes are in course of erection at Ongar, Essex, and when completed will accommodate about 300 children.

Parties of the senior children make periodical visits to the museums, picture galleries, and public and historical buildings in the metropolis.

OFFENSIVE TRADES IN LONDON.

PROPOSED AMENDED BYE-LAWS.

THE London County Council is considering the desirability of amending the existing bye-laws made by the County Council, *re* offensive trades, and has sent round to the borough councils drafts of such amendments, asking for the borough councils' observations. The most important amendment is to require, in future, that, in the case of every business, all offensive processes shall be conducted in a closed chamber, provision being moreover made for the adequate ventilation of such chamber and the destruction of offensive vapours. In all cases where a closed chamber is to be provided, the cleansing of the floor of every such chamber and such part of the walls thereof as is covered with hard, smooth, and impervious material, is required at the close of each working day; and all vessels, receptacles, &c., are to be kept clean so as to prevent any offensive smell.

Yesterday (Thursday) the Health Committee of the Lambeth Borough Council reported that "the suggested amendments are improvements, and deserve the support of the Borough Council."

LAMBETH AND LABOUR COLONIES.

A COMMITTEE of the Lambeth Board of Guardians appointed to consider the question of the establishment of a farm colony as suggested by Mr. Fels, reports: "Having carefully considered this question in connection with the offer of Mr. J. Fels of about 100 acres of land to the guardians at a peppercorn rent for a period of three years, with the option of purchase at the expiration of such term, we recommend that such offer be accepted, and that a small committee be appointed to meet Mr. Fels to consider and view such farms or pieces of land which he and the committee may think most suitable, and to report thereon to the board." At the last meeting of the boarn this was carried, and a small committee was accordingly appointed.

RAILWAY FARES FOR SCHOOL CHILDREN.

THERE is not an elementary school at Barton Moss, and of the 44 children living there 25 are attending schools outside the Barton Education Committee's area. The committee does not think it wise to build a school for so small a number of children, and this week it resolved to pay out of the rates the railway fares of the 22 children attending the schools at Patricroft.

THE St. Helens Watch Committee on Wednesday appointed Mr. A. R. Ellerington, chief constable of Margate, to the position of chief constable of St. Helens in succession to Mr. James Wood, who retires at the end of the year.

HEATING OF BUILDINGS & HOT WATER SUPPLY

FROM LIVE OR EXHAUST STEAM.

The Latest and Best Appliance is

ROW'S PATENT CALORIFIER

Combined with AUTOMATIC STEAM CONTROL (Royles' Patent)

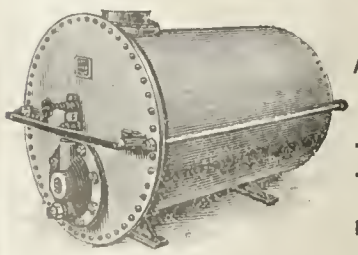
Adopted by the Metropolitan Asylums Board, London County Council, Manchester, Liverpool, Glasgow, Edinburgh Corporations, and others, for Bath Supply.

COPIOUS SUPPLY, UNIFORM TEMPERATURE.

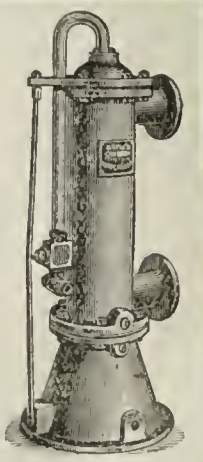
ROYLES LIMITED, IRLAM, near Manchester.

ALSO MANUFACTURERS OF

Feed Water Heaters, Condensers, Evaporators, Steam and Gas Kettles, Syphonia Steam Traps, Reducing Valves, Oil Separators, Exhaust Heads, Boiler Mountings, &c., &c. Price and full particulars on application.



Storage Calorifier for Baths.



Vertical Calorifier for Hot Water Circulation.

ELECTRICITY SUPPLY.

Satisfactory Budgets from Crewe and Paisley. Analysing the Sources of Improvement, and a Prophesy as to the Future. What Careful Comparison may Teach. Debt Redemption Charges, and a Reply to a Correspondent.

THE Borough of Crewe electricity accounts for the year ended March 31st last show a surplus of £1,116 on the year's working, which is an excellent return on a total revenue of £6,065. It is more than half as much again as that for the previous year, and it has been earned on a sale of 170,398 units to private consumers, with a maximum load of but 313 kilowatts. The private consumption has increased more rapidly than the output for public lighting, but the latter is still considerably the higher. The changes are, an increase in revenue of £683, and in expenditure of £220, making the gross profit greater by £463. Extra capital charges amounting to £69 left the surplus increased by £394.

The revenue derived from sales of current, &c., amounted to	£6,030
And the working expenditure to	2,483
Leaving a gross profit of	£3,547
To this sum certain special receipts were added:—	
Interest received	21
Interest on special cable laid	14
And an amount retained from income-tax ...	13
Making a total of	£3,595
Out of this sum the following requirements were met:—	
Interest on mortgage debt	£1,236
Sinking fund payments	1,243
Total of capital charges	£2,479
Surplus for year 1903-4	£1,116
Add surplus balance brought forward	1,671
Total surplus	£2,787

In appropriating the nett receipts the income-tax retained has been eliminated from the revenue, and also deducted from the expenditure.

❦ ❦ ❦

Increased Business at Crewe.

THE expenditure has fallen ·056d. per unit, and the revenue by ·039d., leaving the gross profit better by ·017d. This, added to the reduced capital charges ·158d., gives the improvement in the surplus ·175d. per unit. It will be seen how much has been due to the reduction in capital charges by the larger output. This has increased as regards private supply by 38,373 units, bringing in £468 extra, at a reduced average by ·221d. per unit. Public lighting is greater by £172 and 10,707 units, the average being less by ·094d. per unit. Taking the whole output, the increase is 49,080 units and £640 for current only, at a reduction in selling price of ·057d. per unit. Thus a small station has materially improved its position all round, and is selling its larger output at a lower price, and still making a larger surplus by the better use made of its invested capital and by economies in production. The total cost is under 1¼d. per unit against a little over a 1½d. in the previous year, which should be an encouragement to those who dread the bogey of bulk supply—

CREWE.	Units.	Yielding.	Per unit.
Private consumers took ...	170,398	£2,619	= 3·689d.
Public lamps consumed ...	231,910	3,311	= 3·427d.
Interim total	402,308	£5,930	= 3·538d.
Meter rentals...	—	69	= ·041d.
Sales and receipts	—	31	= ·039d.
Bank interest received ...	—	35	
Total receipts	402,308	£6,065	= 3·618d.
Units used on works... ...	38,315	(The maximum load was 313 k.w., equal to a load-factor of 14·67 per cent.)	
Total accounted for... ...	440,623		
Utilised on distribution ...	14,603		
Total units generated ...	455 226		

❦ ❦ ❦

The Better Policy.

THE public lighting at Crewe is paid for at a uniform rate of 3d. per unit, and the disbursements are refunded. These last year amounted to £238 for attendance and £174 for repairs and renewals on the eight arc lamps and 712 incandescents comprised in the scheme. The receipts were appropriated over the different items of expenditure thus:—

	Amount.	Per unit.
Works cost	£1,455	= ·868d.
Rates, taxes, and management	603	= ·360d.
Total cost...	£2,058	= 1·228d.
Public lamp maintenance	412	= ·245d.
Gross cost	£2,470	= 1·473d.
Interest charges	1,236	= ·737d. } 1·479d.
Sinking fund	1,243	= ·742d. }
Total actual cost of units sold	£4,949	= 2·952d.
Surplus for year	1,116	= ·666d.
Total receipts	£6,065	= 3·618d.

As the capital charges are in excess of the total cost per unit, the public lighting is paying a fair proportion of the surplus profit, owing to the greater use being made of the proportion of plant required for this class of consumption. By so doing the private consumer is enabled to have his supply at a rate which competes with rival illuminants, instead of being called upon, as in so many other cases, to pay not only for his own expenditure, but to cover a large proportion of the loss on public lighting taken at an unremunerative figure. It is much better policy to let the ratepayers at large pay a fair and reasonable rate for the lighting which is provided for the benefit of all than to lay the burden on the few who are private consumers ("few" only too often through a restricted area covered by the mains), and profess to be fulfilling a public service at a phenomenally low rate.

❦ ❦ ❦

Paisley's Position Electrically.

THE accounts of the Corporation of Paisley are made up to the 15th of May annually, and those discussed below bring the history of the undertaking to the date mentioned this year. This is one of the systems still showing a deficiency, but as it is only half, or less than half, of what it was previously another twelve months should see a balance between annual expenditure and income—

The revenue derived from sales of current, &c., amounted to	£10,853
And the working expenditure to	6,208
Leaving a total gross of	£4,645
Out of this sum the following requirements should have been met:—	
Interest on mortgage debt	£142
Interest on Corporation loans fund ...	2,945
Interest on temporary loans...	658
Bank interest	50
Sinking fund payments	1,957
Total of capital charges	£5,752
Less gross profit as above	4,645
Gross deficiency	£1,107
Less income tax retained	22
Nett deficiency for year	£1,085

In the revenue a small sum is included which appears as an item for bad debts in the expenditure. This has been deducted from the revenue, and eliminated from the costs. To follow the changes which have taken place we give particulars of the output for the past six years:—

Year ended Dec. 31st,	1899.	1900.
Units sold..	108,166	370,521
Maximum load	314k.w.	302k.w.
No. of public lamps ...	63	64
Prices charged	7d. & 3d.	6d. & 2d., or 5d.

To May 15th,	1901.	1902.	1903.	1904.
Units sold	152,020	436,953	531,737	847,871
Maximum load ...	302k.w.	382k.w.	527k.w.	703k.w.
No. of public lamps	64	64	64	79
Prices charged ...	6d. & 2d. or 5d.	4d.	4d.	4d.

In addition to these rates there was a special tariff of 2½d. per unit for power and heating, and during the last three years power above 50 h.p. has been the subject of arrangement.

Large Increase in Revenue.

THE improvement, as in so many other instances we have quoted, is due to a large increase in revenue, accompanied by only a small increase in the expenditure. The private sales increased by 285,555 units, and the public by 30,579, making a total of 316,134 units, yielding £2,298 more than before. The cost of this greatly enhanced output was only £321, leaving £1,977 more as gross profit, of which £509 was required for added capital charges, so that £1,468 remained towards a reduction in the deficiency, which has accordingly fallen from £2,553 to £1,085. As the average selling price has been reduced from 3·861d. to 3·072d. per unit, which reduction of ·789d. was exceeded by the lessened expenditure—economies bringing about a saving of ·896d. in this item—and as the capital charges are less by ·738d. per unit, the deficiency has been reduced by ·845d. per unit. These changes are very marked improvements, and particularly so in the case of the costs and capital charges, which at 2·646d. and 2·367d. were both abnormally high. When these outlays have been brought to something like the amounts which are found elsewhere, the Paisley accounts should show a surplus, and as the 4d. rate already yields £6,654, the only alteration which seems probable is an encouragement in the direction of motive power. Twopence-halfpenny is too high to cause the manufacturer to favour a change in this direction, and Paisley ought to yield a rich harvest if the price were one competing with existing modes of factory driving.

❦ ❦ ❦

A Comparison.

THE receipts were obtained from the following sources:—

PAISLEY.	Units.	Yielding.	Per unit.
Private consumers took ...	671,372	£8,523	= 3·074d.
Public lamps consumed...	176,499	1,959	= 2·664d.
Interim total ...	847,871	£10,482	= 2·968d.
Meter rentals	—	231	= ·065d.
Sales of goods, &c. ...	—	138	= ·039d.
Total receipts	847,871	£10,851	= 3·072d.
Units used on works ...	192,625	(The maximum load was 703 kilowatts, equal to a load-factor of 13·77 per cent.)	
Total accounted for	1,040,496		
Utilised on distribution	174,559		
Total units generated	1,215,055		

The total amount received as shown above was taken up and appropriated thus:—

	Amount.	Per unit.
Works cost	£4,563	= 1·292d.
Rates, taxes, and management &c.	983	= ·278d.
Total cost	£5,546	= 1·570d.
Public lamp maintenance...	637	= ·180d.
Gross cost	£6,183	= 1·750d.
Interest charges	3,796	= 1·075d. } 1·629d.
Sinking fund	1,957	= ·554d. }
Total actual cost of units sold	£11,936	= 3·379d.
Less deficiency for year ...	1,085	= ·307d.
Receipts in year ...	£10,851	= 3·072d.

THE capital invested in the undertakings dealt with above was spread over the following:—

	CREWE.	PAISLEY.
Lands	£1,408	£ 909
Buildings	7,458	24,784
Machinery	10,276	50,231
Accumulators	1,315	—
Mains and services ...	19,175	30,597
Meters	1,400	4,319
Electrical instruments	901	594
Transformers	—	11,518
Public lamps	—	2,867
Various	2,234	7,578
Total	£44,167	133,397

❦ ❦ ❦

Common Basis a Failure.

A CORRESPONDENT has raised an interesting question. He writes, "On looking at your interesting analysis in a recent issue of the Eastbourne and Poplar electricity accounts of 1903-4, I have been struck by the disparity in the debt redemption charges."

	EASTBOURNE.	POPLAR.
Capital	£145,989	£194,301
Sinking fund	4,744	1,463
Interest...	4,327	6,331
Total capital charges ...	9,071	7,794

The sinking fund contribution in one case is about 3½ per cent. and in the other about ¾ per cent. The first thing one notices on turning up the printed accounts is that the outlay during the year was respectively £7,541 and £13,703. This partly explains the difference, but only very partially. Of course, if the outlay had just been incurred the sinking fund charges might not have accrued, or at least not have been met. In London the loans are sometimes deferred for three years as regards repayment. Again, the period granted by the London County Council is an equated term of 42 years for all electricity expenditure on capital account, against 25 years in the provinces. The difference is probably explained by these varying conditions, but it is certainly inexplicable why the amounts repaid, the sum charged for rates, and the allowances for use of town hall and general office expenses in different towns should vary as they do. It is largely owing to these variables that any attempt to reduce the results of different undertakings to a common basis must end in failure, or, at least, in confusion; and we have been led to confine ourselves to the facts as set forth in the statutory form of accounts rather than, as some would have us do, apply indeterminate corrections and adjustments to such figures.

♣ ♣ ♣

Low Capital Cost.

IN this connection it may be mentioned that we have been criticised for suggesting that plant of 1,200 kilowatts capacity at Eastbourne could meet a larger demand than 743 kilowatts of the winter of 1903. It is estimated that this winter the maximum will be 840 kilowatts, leaving 360 kilowatts of reserve or spare, and that beyond this it is not safe to go until further plant is available. Of course all depends upon the size and number of the units comprising the plant, but it is so obvious that the overload capacity should be a reasonable amount that if the plant be properly rated the margin to be held as reserve may be materially reduced, and the capital charges per unit sold diminished. To quote an Institution of Electrical Engineers' paper (April, 1904):—"With ordinary load-factors the question of overload capacity has more influence upon the reduction of capital costs—which are at least half the total cost of production—than any other feature. Low capital cost has an overpowering importance: reliability and reasonable economy having been secured, this more than anything else is the criterion of success in power station design. A very great saving can be made by relying upon the overload capacity of the plant, not only for dealing with sudden emergencies, but also depending upon it for the ordinary peak-load of the station, or when other plant is being overhauled." The usual figure for reserve is one-quarter or 25 per cent. of the installed capacity, and if this is exceeded it is clear that the financial charges must be a burden upon an undertaking whose units of machinery are so arranged that they involve the largest set being retained as stand-by.

CORRESPONDENCE.

RATING OF LAND VALUES.

To the Editor.

SIR,—A frequent objection to the rating of vacant land is, that when the land is built over the owner will make the occupier pay the rates just the same by raising the rent by the amount of the land value rate. Another objection is, that in crowded districts like Finsbury, Clerkenwell, &c., a land value rate will raise very little new revenue if you are not going to tax ground landlords, and we certainly do not propose to do that. One is always glad to find points of agreement with those with whom one differs, and I readily agree that the occupier will pay the full value of his premises whoever pays the rates. Nor is there going to be much less rates in the pound in crowded districts by unoccupied land being added to the assessment roll. If you do put the legal charge of the rates upon him, the landlord can be trusted to get what he can, and the tenant to pay what he must, and in districts like Clerkenwell a penny or so in the pound will be all the "relief" the ratepayers are likely to get.

There is, however, another side to the shield, admirably brought out by Lord Balfour of Burleigh, Lord Blair Balfour, Sir George Murray, K.C.B., Sir Ed. Hamilton, K.C.B., and Mr. Stuart, in the "Separate Report" on "Urban Rating and Land Values," forming part of the Report of the Royal Commission on Local Taxation. These gentlemen aptly remark (page 165 of the Report, last paragraph):—

"The mistake made hitherto has been to regard the taxation of site value as primarily a question between the parties interested in any one hereditament, or as essentially depending on the rights or wrongs of the dispute between the ground landlord and the string of lessees as to the fairness of their contracts.

"The real question as to the taxation of site value is the question whether there ought not to be a tax on site value, *where it exists*, and in proportion to the amount of it which exists in each place. In other words, site value is in essence *local*, and the effect of taxing site value would be primarily a *local* redistribution of burden, not primarily a redistribution of burden as between the parties interested in each single hereditament, but as between different districts and different hereditaments."

Let us take an ordinary case that often goes on for years. One side of a street is built upon, and the other is a vacant site. Mr. Jones, the owner of this site, reaps an equal advantage with the owners and occupiers of the buildings opposite in the beneficial and costly public improvements continually going on. But rates and taxes amounting to a quarter of the total annual yield from site and structure are drawn from the covered land, and from these Mr. Jones is entirely exempt until such time as he allows work to be found for the unemployed by parting with his land to a builder. It is often more profitable to the owner for his land to remain unbuilt upon until growth of population and material progress lends a higher value to the site. It is a well-known fact that land around London grows in value at least two per cent. every year, and sometimes very much more. But these circumstances retard improvements, and are adverse to the true interests of all those who desire to find a vent either for their labour or for their capital.

That there is a profound and intimate connection between the unemployed and vacant land is proved by the demand that has arisen for labour colonies.

Yours truly,

F. BATTY.

20, Grand Parade, Highgate, N.

"HOW MUNICIPAL TRADING RAISES RATES."

To the Editor.

SIR,—Mr. R. M'Dougall, of the Liberty and Property Defence League, seeks to prove from the return compiled by Mr. Jas. Carter, borough treasurer of Preston, that municipal trading tends to raise the rates. Mr. M'Dougall does not venture to show the how or why of the process, but relies on the familiar method of selection—picking out such figures as suit his purpose, and suppressing those that don't—to frighten people. He takes a few towns which from the profits of municipal trading relieve the rates to the extent of 1s. and upwards, and happen to have high rates, often due to the heavy municipal burdens cast upon them by the misdeeds of private proprietors abusing their liberty. He then takes a few towns which give little or no relief, acting on the principle with which we are familiar in Scotland, of making price just cover the total expenses, and happen to have low rates. Such conjunctions, he suggests, are the general truth conveyed by Mr. Carter's return.

What does an unsophisticated examination of the return show? Ten towns are given in it which relieve rates to the extent of 1s. or more. The average rates in these towns are almost exactly 7s. 2d. Fifteen towns act on the Scottish principle, and derive no profits from municipal trading. In these towns the average rates slightly exceed 7s. 2½d. I leave your readers to judge of the trustworthiness of Mr. M'Dougall's conclusions as to the dangers of municipal trading, or the scientific accuracy of the methods by which he reaches these conclusions by this sample of his wares.

I am, &c.,

Glasgow. F. A. B.

ABERDEEN'S INTERIM CITY CHAMBERLAIN.

AT Aberdeen Town Council, on Tuesday, Mr. Alex. M. Munro, at present assistant city chamberlain, was appointed to act *ad interim* as successor to the late Mr. P. M. Cran, city chamberlain, and it was remitted to the Finance Committee to report as to the filling of the vacancy permanently.

J.G. WHITE & COMPANY, LIMITED.
ELECTRICAL, MECHANICAL & CIVIL ENGINEERS
GENERAL CONTRACTORS
22A, COLLEGE HILL, CANNON ST LONDON, E.C.
TELEGRAMS "WHITTERICK · LONDON" TELEPHONE · 6044 & 6045 · BANK

NEW YORK RAPID TRANSIT.

SOME LESSONS FOR LONDON.

[By Mr. J. ALLEN BAKER, Chairman L.C.C. Highways Committee.]

THE statesmanlike and able way in which the New York Rapid Transit Board has sought a solution of the street traffic problem in its city, is, I think, suggestive of what should be undertaken for London, if the same problem which is equally pressing here is to be solved.

No doubt the circumstances in New York are in some measure different from those of London, inasmuch as the business portion of the city on Manhattan Island cannot further expand, and hence the "skyscraper" type of building must increase to meet the vast growing need of the city. Concurrent with this, rapid transit facilities, both surface and subsurface, must also increase. The New York City authorities, as well as the operating companies, have fully realised this, and as a result they have to-day:—

(1) The most extensive elevated street railway system in the world, recently converted from steam to electric traction;

(2) The most up-to-date and perfect system of surface street railways, comprising 210 miles of electric conduit lines; and

(3) The present Rapid Transit Subway Electric lines, with their extensions in both city and suburbs, will, I believe, be far in advance of any other scheme of city transit in the world.

London's Problem.

London may expand, is yearly expanding, in every direction to accommodate her ever-increasing population, but with the growth outwards there is also a corresponding congestion in the central and business districts, and large business blocks are constantly being erected in and near the City as the old leases fall in. We have detached systems of tramways, suburban train systems, deep level railways, and omnibuses, but no co-ordinated and harmonious plan that meets the needs of the county as a whole. Omnibuses in other cities have had to succumb to the more comfortable and speedy electric street car. Deep level tubes are admittedly less comfortable, less convenient and more costly to construct and operate than the shallow subway, and I do not think that they are likely to be largely extended in London. The electrification of the District and Metropolitan Underground Railways, and the lines in connection therewith, constitutes, however, an important step in the co-ordination of London locomotion.

The Solution.

The real solution, I am persuaded, is to be found in the further electrification and extension of the London County Council tramways and in the construction of further subways under some of the streets in the more central parts, to make east and west, as well as north and south, connections. The authorised tramway over Putney Bridge will soon be constructed, while lines from the south to Victoria will be constructed when the new Vauxhall Bridge is opened. It is hoped that powers to construct lines over Westminster and Blackfriars Bridges may be obtained in the next session of Parliament. The Council's new subway under Kingsway, which will bring the Northern tramways as far as the Strand, is now under construction. If the connections with the proposed lines along the Embankment and across Westminster and Blackfriars Bridges are sanctioned by Parliament, north and south through connection will for the first time be attained by the tramways, which will be of the greatest value to the Council's system, and of immense benefit to the travelling public.

Powers were obtained in the last session of Parliament for the construction of a line from the Council's conduit lines in Greenwich to the southern end of the Blackwall Tunnel. The lines along East India Road pass the northern end of the tunnel, and it only remains to obtain authority for a line through the tunnel to make a further and most valuable north and south connection in the East End.

An east and west shallow subway from Hammersmith to the Bank, with connections with the present subway at the Strand, and with radiating lines under the City to the tramway termini on the north and east boundaries of that area, would be a most valuable, and probably profitable, scheme. Another subway from the tramways terminus at Victoria Station to the Marble Arch, under Grosvenor Place and Park Lane, connecting with a surface tramway from there, from along Edgware Road to join the Middlesex lines at Cricklewood, should be carried through. Another valuable line would be along Tottenham Court Road, Charing Cross Road and *viâ* Trafalgar Square and Parliament Street to Westminster Bridge. The extension of surface lines, wherever possible, in the west and north-western parts of London, having connections with the present systems and affording access by subway to the City, should be carried out at no distant date, and then the reproach that now attaches to London as being one of the most badly served cities in the world, so far as transit facilities are concerned, would to a large extent be removed.

New York has shown us an example of what enlightened civic enterprise can accomplish. London has the opportunity, with its existing tramway systems, and its first tramway subway under construction, to extend, connect, and build up a complete and uniform system for the whole of the county that will be a credit to the Capital of the Empire.

TRAMWAY TOPICS.

Long Distances and Low Fares.

THE tramways manager of West Ham (Mr. H. E. Blain) has compiled a very interesting statement showing the distances given for each rate of fare by all the tramway undertakings in the kingdom on which half-penny stages are provided. The following table is interesting as showing the carrying power of various tram fares in different towns:—

System.	Length of Stage. Halfpenny. Average	Halfpenny. Max.	Penny. Average.	Penny. Maximum.	Three halfpence. Average.	Three halfpence. Maximum.	Twopence. Average.	Twopence. Maximum.	Aver'ge fare chr'ged per mile.
	Yds.	Yds.	Mls. Yds.	Mls. Yds.	Mls. Yds.	Mls. Yds.	Mls. Yds.	Mls. Yds.	d.
Aberdeen ...	1,000	—	1 440	1 860	1 1,320	1 1,480	2 880	2 1,280	·82
Ayr	1,100	1,600	1 880	—	—	—	3 0	—	·68
Barking	880	—	—	—	—	—	—	—	—
Birkenhead ...	1,005	1,188	1 704	1 1,496	1 1,465	1 1,507	3 1,043	5 880	·67
Dundee	968	1,710	1 1,302	2 484	2 0	2 758	—	—	·69
East Ham ...	1,464	2,160	1 1,194	2 145	2 624	2 1,330	3 280	3 495	·62
Glasgow	1,020	1,478	2 563	2 1,337	3 845	3 1,742	4 1,126	5 550	·45
Halifax	627	638	1 945	1 1,166	—	—	—	—	·79
Ilford	1,150	1,560	1 540	1 880	1 1,640	2 380	2 1,320	3 0	·75
Kirkcaldy ...	1,153	1,343	1 752	1 1,105	1 1,707	2 259	2 624	2 700	·78
Lancaster ...	818	1,000	—	—	—	—	—	—	—
Leeds	950	1,425	1 1,337	2 246	2 281	2 686	3 193	3 1,619	·66
London County Council ...	1,155	1,600	1 314	2 880	2 257	3 880	4 129	4 1,320	·62
Nelson	922	1,200	—	—	—	—	—	—	—
Rotherham ...	1,144	1,408	1 1,038	1 1,531	—	—	3 298	3 440	·64
Sheffield	880	1,383	2 880	3 413	—	—	—	—	·50
West Ham ...	1,209	2,070	1 1,351	2 135	2 1,190	2 1,635	3 1,258	4 120	·56

West Ham's Position.

IT will be seen that West Ham occupies a third position in regard to the average fare per mile, the first being Glasgow, which, with its huge undertaking and long distances, charges ·45d. on an average for each mile; the second Sheffield, which, by reason of its universal penny stage, brings its average down to ·50d. per mile; West Ham's being ·56d. This is highly creditable to the Council of this extra-metropolitan borough. Last week we showed that its tramway finances are in a sound and progressive condition, this notwithstanding that it is the only undertaking in the United Kingdom whose minimum wages for either traffic or shed staff is 35s. a week.

North London Arbitration.

SIR COLIN MONCRIEFF sat in the Westminster Guildhall on Monday as arbitrator for the purpose of determining a claim brought by the Hornsey Borough Council against the Middlesex County Council for the recovery of £2,000. In connection with the construction of the electric tramways in North London, the County Council required the Borough Council to carry out certain alterations. The plan proposed by the County Council was regarded by the Borough Council as dangerous, and accordingly the latter carried out the work itself, and sought repayment of the cost from the Council. After hearing expert evidence the arbitrator reserved his award.

The South London Railway.

LAST Friday afternoon a party of members of the Tramways and Light Railways Association paid a visit, arranged through the courtesy of Mr. Brousson, the engineer and traffic manager of the Great Northern and City Railway, and Mr. T. C. Jenkin, the general manager of the City and South London Railway, to the power stations of those electrically-operated undertakings. The equipment of the two lines presents many interesting points of difference, as might be expected when it is borne in mind that the City and South London was the first tube railway constructed in the metropolis, and, indeed, was the first example in any part of the world of the application of electricity to the propulsion of heavy railway rolling stock, while the Great Northern and City line is the latest tube railway opened to traffic in the capital. The South London tube, which passes beneath the bed of the Thames near London Bridge, is of smaller diameter than any other deep-level railway here; while the Great Northern and City tube is the largest yet constructed, and, with its diameter of 16 feet, can accommodate ordinary railway carriages or the most spacious English Pullman cars. A novel feature recently introduced by Mr. Brousson into the working of the last-mentioned railway is an automatic system of track signalling, used with a treadle control. A train entering upon a section of the line puts the signal controlling that length to "danger," and locks it in that position until the train passes out of that section, when the controlling relay is energised, and the last coach, which is fitted with a brush, makes contact on the treadle and releases the signal. Safety in operation appears to be secured by reason of the fact that the signal in advance must have gone to "danger" before the treadle can operate the signal in the rear.

Chesterfield's New Tramways.

THE new municipal electric tramway system at Chesterfield was this week inspected by Major Pringle, one of the Board of Trade's inspectors. He was accompanied by Mr. A. P. Trotter, electrical adviser to the Board of Trade. Among the members of the Corporation who rode in it over the track was the Mayor (Councillor Hopkins). The cost of the four-mile scheme is about £60,000, and the contractor is the British Insulated and Helsby Cables Company, Limited. The whole of the work has been carried out under the supervision of the borough electrical engineer (Mr. R. L. Acland).

Tramway Experiment at Bradford.

THE Bradford Tramways Committee is at present making another attempt to solve the "dry-seat" problem. The seat in this particular case consists of an endless chain of

leather and wooden laths, supported by two rollers. If the exposed portion should be wet, a turn of a wheel fixed to the side carries it underneath, and a dry portion takes its place. The seat is similar in appearance to the ordinary single seat in use on the top portion of cars. The idea seems to be quite as good as the many inventions to provide a dry seat on uncovered cars which have already been given a trial. The patentees of the seat are Messrs. Heaton and Wood.

"Tramcar as Hackney Carriage."

ON May 10th last, the town clerk of Dewsbury (Mr. H. Ellis) laid an information against the Yorkshire (Woollen District) Electric Tramways Company, Limited, alleging that, being the proprietors of a tramway car, it permitted the same to be used as a hackney carriage plying for hire within the borough without having obtained a licence, as required by Sec. 37 of the Town (Police) Clauses Act, 1847. It was proved before the justices that the car in question was worked by electric energy through the public streets of Dewsbury and the adjoining districts, and that it ran through the streets carrying passengers at separate fares, and that the car had not been licensed. The justices were of opinion that the car in question was an omnibus within the meaning of the Act, and that the appellants had been guilty of an offence in plying for hire with their car without a licence, and they convicted them, inflicting a nominal fine of 2s. 6d.

The Justices' Decision Reversed.

THIS week the case came before the Lord Chief Justice and Justices Kennedy and Ridley in the King's Bench Division. The respondents contended that the car was an omnibus within the meaning of the Town (Police) Clauses Act, and that it must, therefore, be deemed to be included within the term "hackney carriage" in those Acts. The appellants, on the other hand, contended that the carriage was not an omnibus or hackney carriage; that by reason of the Light Railways Act and the Spen Valley Railway Act, the Town (Police) Clauses Act did not apply to such car, and that no licence was required. The appeal was allowed, with costs. The Lord Chief Justice, in delivering the judgment of the Court, said that the ingenious contention on behalf of the local authorities, if enforced, would lead to many absurdities, and the Court had come to the conclusion that the whole course of legislation showed that these light railways were railways, and in no sense of the word hackney carriages.

London, Deptford, and Greenwich Arbitration.

MR. JUSTICE BRAY on Wednesday decided a special case submitted by an arbitrator arising out of the purchase by the County Council of the London, Deptford, and Greenwich tramways. The company contended that the value of its undertaking was enhanced by reason of its being freed from liability to contribute to the widening of certain streets. The arbitrator had assessed the additional compensation under this head at £22,773 in the event of the Court finding that the company was entitled to it at all. His lordship decided that the company's contention was unfounded, and that the company was not entitled to the sum. Judgment accordingly, with costs.

Santa Claus by Tram.

THE Liverpool Tramways Committee is this year again making special arrangement for the running of an illuminated electric car to-morrow evening (Christmas Eve). The authorities have specially decorated the car for the occasion with a figure at each end, almost full size, of Santa Claus with a bag of toys, suitably illuminated, which, no doubt, will be found pleasing from the point of view of the youngsters of the city, who always await the arrival of the car in large numbers.

Welsh Tramway Scheme.

THE South Wales Electrical Power Distribution Company and the Carmarthenshire Electric Power Company have deposited a joint Bill for introduction into Parliament next session, under the title of "A Bill to transfer to and vest in the South Wales Electrical Power Distribution Company the undertaking of the Carmarthenshire Electric Power Company, and for other purposes." The preamble states that the South Wales Electrical Power Company has raised a large amount of capital and has constructed stations for generating electricity within the area prescribed by the Act of 1900, and is actually carrying out the powers conferred upon it by Parliament, and as the area of the Carmarthenshire Company adjoins that of the company, it would tend to economical working in the future if the Carmarthenshire Company's undertaking were transferred to the company.

Municipal Tramways Football League.

	Plyd.	Won.	Lost.	Drn.	Goals For.	Goals Agst.	Pts.
Manchester	4	3	1	0	13	7	6
Wigan	5	1	2	2	7	8	4
Sheffield	2	1	0	1	6	3	3
Liverpool	4	1	2	1	6	9	3
Southport	3	1	2	0	5	10	2

Result of match played on 14th December:—Wigan 3, Manchester 2 (as played up to 16th December, 1904).

MUNICIPAL ELECTRIC TRAMWAY RETURNS.

Undertaking.	Date of Opening.	Length of Route.	Total Length Track.	Year ends.	Last Weekly Return. Receipts.	Last Weekly Return. Passengers.	Corresponding Week 1903. Receipts.	Corresponding Week 1903. Passengers.	Total Receipts for Year. 1904.	Total Receipts for Year. 1903.
		Miles	Miles							
Aberdeen	Dec. '99	2·50	5	May 31	1,063	—	1,076	—	41,686	35,972
Ayr	Sept. '01	6	8	—	170	51,111	162	47,696	10,455	9,958
Birkenhead	Feb. '01	13·52	23·53	March 31	984	204,000	998	208,018	39,482	40,015
Blackburn	Mch. '99	13½	13½	March 25	707	133,724	700	128,537	33,416	30,120
Blackpool	Oct. '84	3	6	March 31	261	—	255	—	42,898	36,958
Bolton	Nov. '99	25	35	March 31	1,678	368,089	1,610	353,541	69,973	69,417
Bournemouth	July '02	11·8	18·2	March 31	793	153,631	805	151,594	52,445	17,637
Bradford	July '98	53¾	95¼	March 31	3,729	—	3,366	—	169,463	142,382
Brighton	Nov. '01	6·5	11·75	—	758	172,074	751	180,433	—	—
Burnley	Mch. '02	10·60	10·60	March 31	987	183,392	769	136,928	—	—
Cardiff	Dec. '01	16	30	March 31	—	—	—	—	—	—
Darwen	Oct. '00	4·5	4·25	Dec. 31	—	—	—	—	—	—
Dover	Sept. '97	3·5	4·5	March 31	180	46,250	169	43,489	8,641	8,820
Dundee	July '00	12·56	23·1	March 31	808	—	768	—	24,512	—
East Ham	June '01	6·6	10·75	March 31	618	237,187	594	230,666	27,048	25,539
Glasgow	Oct. '98; Extens., April '01	71½	143	May 31	13,359	3,549,449	13,179	3,500,076	412,521	392,225
Halifax	—	—			2,261	542,640	2,092	502,080	68,008	61,151
Huddersfield	Feb. '01	—	32	March 31	—	—	—	—	—	—
Hull	July '99	9·5	18·5	March 31	2,115	507,710	1,940	465,696	81,720	71,235
Ilford	Mar., '03	6·5	10·5	—	352	95,414	322	—	17,275	790
Ilkeston	May, '03	3·5	4	—	93	24,163	114	29,501	—	—
Leeds	Aug. '97	37	71	March 25	5,411	—	4,956	—	220,508	207,662
Liverpool	Nov. '98, June '99	66	114	Dec. 31	9,707	2,118,539	9,525	2,072,819	516,577	502,300
L.C.C.*	1897, Jan. '99	—	47¼	March 31	11,930	—	8,908	—	464,618	363,732
Manchester	June '01	72	131·50	March 31	11,677	2,390,879	11,040	2,254,335	456,462	437,081
Nelson	Mch. '02	2·75	3·5	—	103	31,887	89	26,188	4,510	3,211
Newcastle	Dec. '01	17	36	—	3,543	807,133	3,521	780,085	—	—
Oldham	Dec. '00	18	28	—	1,349	267,936	1,117	245,607	45,428	43,908
Portsmouth	Sept. '01	15	28	—	1,437	318,791	1,374	302,843	74,442	68,650
Reading	July '03	7½	13⅜	—	511	119,362	491	113,938	—	—
Rotherham	Jan. '03	7⅓	—	March 25	386	87,899	391	86,758	17,324	14,777
Salford	Oct. '01	32⅓	59½	March 31	3,817	727,478	3,716	—	153,475	145,498
Sheffield	Sept. '99	32½	59½	March 25	4,548	1,211,163	4,238	1,121,203	177,970	174,075
Southampton	Sept. '98	9⅜	16⅜	March 31	816	154,062	844	164,613	36,831	39,186
Southend-on-Sea	July '01	6·85	—	March 31	—	—	—	—	—	—
Sunderland	July '00	12·27	23	—	1,116	—	1,072	—	47,804	46,712
Wallasey	Mch. '02	0	10·5	March 31	676	129,453	595	114,432	28,442	26,589
Walsall	Jan. '04	12½	13½	Dec. 31	442	80,473	—	—	23,996	—
West Ham	Feb. '04	9·78	12·98	—	1,014	298,365	—	—	39,765	—
Wolverhampton	April '02	11·258	16·848	March 31	663	144,556	386	77,379	—	—

* Also includes the horse lines.

DICK, KERR & Co., LIMITED,

ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Contractors for Municipal Lighting and Tramway Schemes.

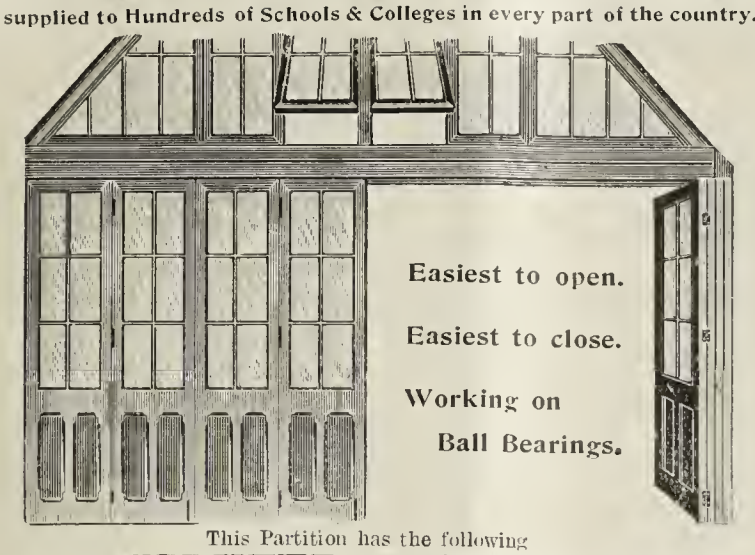
Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

The Educational Supply Association have
ALL WORK DONE IN ENGLAND
at the Association's Factory at Stevenage.

PATENT FOLDING PARTITIONS,

As supplied to Hundreds of Schools & Colleges in every part of the country.



Easiest to open.
Easiest to close.
Working on Ball Bearings.

This Partition has the following
UNDISPUTED ADVANTAGES
Over every other design in the market:

A child can extend or fold it.
Extended it is an absolutely effective divider.
Folded it occupies the minimum space.
It has no intricate works to get out of order.

Model Partitions forwarded to any part of the kingdom recommend themselves by their superiority. The workmanship and durability are guaranteed.
Estimates for the erection of a partition (including fixing) in any part of the country, sent post free.

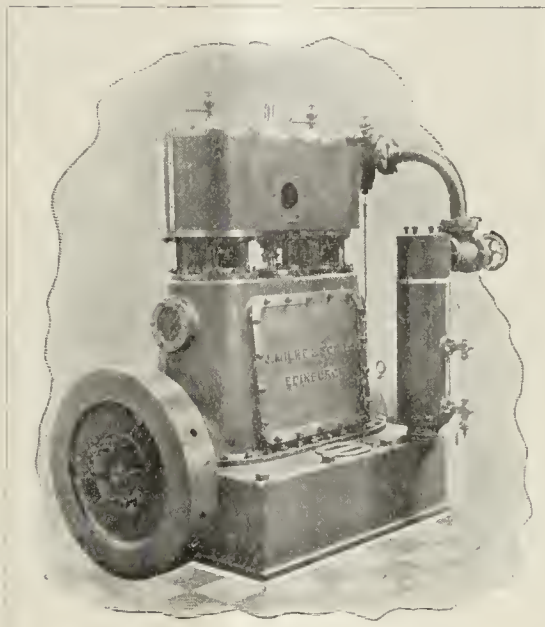
PUBLIC LIBRARIES, TECHNICAL INSTITUTES, POLYTECHNICS, CHURCHES, &c., &c., FITTED THROUGHOUT.
PLANS submitted FREE OF CHARGE, showing suggested arrangements of fittings. Estimates prepared either for Stock Patterns or Architect's Special Design for Fittings. Large Stocks of Oak, Pitchpine, and other woods always kept at the Factory at Stevenage. The Seasoning Sheds cover many acres.
For further particulars concerning any of the above apply to the
EDUCATIONAL SUPPLY ASSOCIATION, Ltd.,
12, HOLBORN VIADUCT, LONDON, E.C.

JAMES MILNE & SON, Limited,

Gas, Water & General Engineers,

MILTON HOUSE WORKS, EDINBURGH.

Pumping & Conveying Machinery.



Station Gas Meters & Governors.

QUICK REVOLUTION ENGINE,
Made Simple, Compound, or Triple Expansion, with Fixed or Variable Speeds.

TELEGRAMS:—(A B C Code 4th & 5th Editions) "MILNE, Edinburgh."

The REAL WATER PAINT.

. In .
70 Colours
All of which are unaffected by Light, Heat, or Damp.
Many will stand Lime.

HALL'S Sanitary Washable Distemper

PATENTED.
The Cleanest, Cheapest, and most Artistic Wall Covering.
Sold in small tins and Iron Kegs ready to mix with water. Applied with a Whitewash Brush. Send for Sample and New Shade Card to the Manufacturers,

Used with greatest success in Institutions, Hospitals, Public Buildings, Halls, Staircases, Drawing and Dining Rooms, and for inside and outside of temporary Buildings.

SISSONS BROTHERS & CO., Ltd., Varnish, Paint, & Colour Manufacturers, HULL.
London Office—199B, BOROUGH HIGH STREET, S.E.

WM. GRIFFITHS & Co., Ltd.,

35 to 39, HAMILTON HOUSE, BISHOPSGATE STREET WITHOUT,
LONDON, E.C.,

CONTRACTORS FOR CONSTRUCTION OF TRAMWAYS

AND MUNICIPAL WORK OF ALL DESCRIPTIONS.

QUARRY OWNERS AND STONE MERCHANTS.

LARGE STOCKS ON HAND OF

PITCHINGS, KERB, MACADAM, YORK STONE, JARRAH TIMBER, &C.

TELEGRAPHIC ADDRESS—"GRIFFITHS, STONE, LONDON." TELEPHONES—Nos. 2868 and 2869, LONDON WALL.

Appointments Vacant.

Latest date for applications in parentheses.

Assistant Master. £50. J. H. Ford, Poor Law Offices, Leeds. (December 27.)

Baths Superintendent and Wife. £125 (joint salary). W. Hodson, 242, High Street, Acton, W. (December 28.)

Clerkships—Fourth Class. Examinations on January 16, 17, and 30th. Applications by 11th and 16th January respectively. Clerk of London County Council, Spring Gardens, S.W. See advt. in No. 619.

Clerks in County Accountant's Office.—Two Assistant Bookkeepers, £100 and £90 respectively; General Clerk, £70. R. W. Merriman, Clerk for County Council, County Offices, Trowbridge. (December 31.)

Clerk in County Surveyor's Office. £52. S. Thornley, Shire Hall, Worcester. (December 30.)

Clerk of Hospital. £600. W. H. Cross, St. Bartholomew's Hospital. (December 31.)

Clerk of Works. E. Knightley, Clerk of District Council, Newhaven. (January 4, 1905.)

Clerk of Works. £3 10s. per week. H. Ward, Council House, Handsworth. (January 5.)

Clerk of Works. £3 per week. G. Balfour, County Education Offices, Stafford. (December 29.)

Draughtsmen (2 Senior). £2 10s. per week. One Junior Draughtsman. £1 10s. per week. T. Duncombe Mann, Asylums Board Offices, Embankment, London, E.C. (December 28.)

Electricity Works. Man to take charge of publicity department. £150. A. C. Cramp, Borough Electrical Engineer, Croydon. (December 27.)

Engineer to take charge of gas engines. Also Second Man and Youth as cleaner. Frank Baker, Borough Engineer, Middlesbrough. (December 29.)

Female Attendant. £26. J. Hutton Haylor, Guardians' Offices, 329, High Road, Kilburn, N.W. (January 3, 1905.) See advt. in this issue.

Highways Foreman. 35s. per week. W. J. Normanville, Borough Engineer, Town Hall, Leamington. (December 29.)

Inspectors of Roads. 50s. per week. W. F. Dewey, Town Clerk, Town Hall, Upper Street, Islington, N. (January 4.)

Instructors and Assistant Instructors in Manual Training. £100 and £80 respectively. Clerk of London County Council, Education Offices, Victoria Embankment, London, W.C. (January 4.)

Master and Matron. £125 and £50. J. Appleton, Clerk to Guardians, 57, Broad Street, Bloomsbury, W.C. (January 7.)

Nurse. £20. R. H. Roberts, Clerk to Guardians, Union Offices, Ruthin. (January 7.)

Nurse (Workhouse). £30. J. H. Thomas, Clerk to Guardians, Carnarvon. (January 4.)

Porter and Portress (Married Couple). £30 and £15. W. W. Duffield, 96, High Street, Chelmsford. (December 31.)

Relieving Officer, Collector, &c. £120 and 5 per cent. commission. C. Taylor, Clerk to Guardians, Minster, near Ramsgate. (January 5.)

Relieving Officer (General Assistant). £80. J. Hutton Haylor, Guardians' Offices, 329, High Road, Kilburn, N.W. (January 3, 1905.) See advt. in this issue.

Relieving Officer (Superintendent). £200. W. R. Stephens, Guardians' Offices, Marloes Road, Kensington. (December 31.)

Relieving Officer (Assistant). £80. E. Pitts Fenton, Guardians' Offices, 283, Tooley Street, S.E. (December 29.)

Sanitary Inspector. £120. J. A. Johnson, Town Clerk, Town Hall, Walworth Road, S.E. (January 2, 1905.) See advt. in No. 620.

Schoolmistress. £40. Geo. F. Carnell, Clerk to Union, Sevenoaks. (December 28.)

Secretary (Association of Poor Law Unions). £150. H. E. Lawrence, 47, Essex Street, Strand, W.C. (December 31.)

Secretary to Hospital. £200, and commission. The Committee, Essex and Colchester General Hospital, Colchester. (January 7.)

Shorthand Clerk. £71. W. F. Dewey, Town Clerk, Town Hall, Upper Street, Islington, N. (January 5, 1905.) See advt. in this issue.

Sub-Librarian. £100. E. Wright, Town Clerk, Lewisham Town Hall, Catford, S.E. (January 4.) See advt. in No. 620.

Surveyor's General Assistant. £110. R. M. Prescott, Town Clerk, Town Hall, Fulham. (December 27.) See advt. in No. 620.

Surveyor. £120. T. H. Cornish, Clerk to District Council, West Penwith, Cornwall. (December 27.)

Surveyor, &c.—Assistant. £65. C. P. Lovelock, District Council Office, Carshalton. (December 28.)

Tramways — General Manager. £700. Hill Motum, Town Clerk, Town Hall, Newcastle-on-Tyne. (January 7.) See advt. in this issue.

Water Inspector. 30s. per week. T. J. Sworder, Town Clerk, Hertford. (December 31.)

Tenders Wanted.

Latest date for sending in tenders in parentheses.

Ambulance. K. Comerford, Clerk to Guardians, Kilkenny, (January 12.)

Bookbinding. Town Clerk, Town Hall, Peckham Road, S.E. (January 16.)

Boots. J. L. Wheatley, Town Clerk, Town Hall, Cardiff. (January 2.)

Boots and Shoes. C. B. Williams, Inspector of Poor, Aberdeen. (December 26.)

Boilers—Steam, &c. Sir Samuel Black, Town Clerk, Belfast. (January 12.),

Building Alterations and Additions. T. W Liddiard, Education Offices, High Street, Walthamstow. (January 9.)

China, Earthenware, and Glass. W. G. Austin, Clerk to Visiting Committee of Napsbury Asylum, Guildhall, Westminster. (December 30.) See advt. in this issue.

Clothing. Major Gordon, County Police Office, Aberdeen. (December 28.)

Clothing. H. W. Cook, Public Offices, Egremont, Cheshire. (January 7.)

Clothing. Town Clerk, Municipal Buildings, Greenock. (January 6.)

Clothing—Police. Chief Constable, Doncaster. (December 31.)

Clothing—Police. Chief Constable, Coventry. (December 31.)

Clothing—Police. Chairman of the Watch Committee, Police Offices, Stockport. January 5.)

Clothing—Uniform. R. E. Fox, Town Clerk, Leeds. (January 2.)

Clothing—Uniform. J. L. Wheatley, Town Clerk, Town Hall, Cardiff. (December 30.)

Concrete Flooring, Engine Sheds, &c., at Sewage Works. E. Crowne, 712, High Road, Tottenham. (January 3.)

Disinfectants. H. Monckton, Town Clerk, Maidstone. (January 2.)

Electrical—Transformers, Pillars and Switchgear, and Overhead Travelling Cranes, for Johannesburg Municipality. Mordey and Dawbarn, 82, Victoria Street, Westminster, S.W. (December 27.)

Electrical—High-Tension Switchgear. W. H. Hickson, Town Clerk, Town Hall, Rochdale. (December 27.)

Electric Meters. Edwin C. Curtis, Town Clerk, Neath. (December 28.)

Electricity Department — Wooden Cooling Towers. F. M. Bowey, Town Clerk, Town Hall, Sunderland. (December 30.) See advt. in No 620.

Electric Light Installation. Sir Samuel Black, Town Clerk, Belfast. (January 12.)

Electricity Supply (Port Elizabeth, South Africa). Davis and Soper, 54, St. Mary Axe, London, E.C. (January 16.)

Electric Tramways (Shanghai). Messrs. Pook and Co., 63, Leadenhall Street, E.C. (March 31, 1905.)

Electrical Tramway Equipment. C. H. Fry, District Council Office, Erith, Kent. (January 9.)

Fencing, Wrought-Iron. Hatten and Asplin, Council Offices, High Street, Grays. (January 11.)

Fire Brigade Station — Erection and Completion. J. D. Askey, Town Clerk, 99, Southwood Lane, Highgate, N. (January 2.)

Fireclay Goods. Chairman, Gas Committee, Town Hall, Manchester. (January 6.)

Gas Plant. J. McG. Jack, 25, Waterloo Place, Edinburgh. (January 30.)

Granite. H. A. Winser, Municipal Offices, Kingston-on-Thames. (January 11.)

Granite Kerb, &c, H. Talbot, Town Clerk, Town Hall, Brighton. (January 6.)

Gymnastic Appliances. C. H. F. Barrett, Town Clerk, Town Hall, Paneras Road, N.W. (January 2.) See advt. in this issue.

Heating of Pavilions, &c., at Hospital. Sir Samuel Black, Town Clerk, Belfast. (January 12.)

Heating Public Library. J. B Connolly, Public Library Committee, Drogheda. (December 31.)

Heating, Ventilating, and Hot Water Plant. R. W. Partridge, Asylum Committee Office, 6, Waterloo Place, S.W. (January 23.)

Libraries—Competitive Designs invited. Chief Librarian, Public Library, Royal Avenue, Belfast. (January 17.)

Loan. W. Pruddah, Town Hall Chambers, Hexham. (January 7.) See advt. in this issue.

Loan of £2,150. J. L. Hawkesworth, Council Office, Bolton-upon-Dearne. (January 2.)

Loans of £50 and Upwards. Haswell Brown, Borough Accountant, Town Hall, Sunderland. See advt. in this issue.

Mackintoshes, &c. J. Haslam, Clerk to Water Board, Bank Street, Bury. (January 3.)

Meat and Flour. George Purvey, Clerk of County Asylum, Haywards Heath. (December 28.)

Oilskin Suits. J. Colenso Jones, Council Offices, Pontypridd. (January 2.)

Printing Catalogue. Town Clerk, Town Hall, Barrow-in-Furness. (January 9.)

Pumping Main. E. Crowne, 712, High Road, Tottenham. (January 3.)

Reservoir, &c. F. Horner, Council Office, East Street, Newton Abbott. (January 10.)

Retubing Condensers. M. Kirkley, Town Clerk, Town Hall, Ripon. (January 18.)

Road and Drainage Works. J. Lamb, Clerk to Guardians, 206, Goldhawk Road, Hammersmith, W. (December 27.)

Road Materials. C. H. Mounsey, County Surveyor, Carmarthen. (December 28.)

Road Material and Cartage. W. McIntosh, County Surveyor, Worthing Road, Horsham. (December 31.)

Sewage Distributors. A. Challinor, Town Clerk, Town Hall, Hanley. (December 30.)

School—Competitive Designs invited. Buildings Sub-Committee, Education Committee, 8, New Road, Oxford. (February 1.)

School Buildings—Remodelling. Competitive Designs invited. J. W. Watkins, Education Office, Llanelly. (January 31.)

Sewerage. E. W. Adams, Union Offices, Evesham. (January 14.)

Sewage Disposal Works. A. Challinor, Town Clerk, Town Hall, Hanley. (December 30.)

Sewer Construction. Henry T. Weyman, Clerk to Wigmore District Council, Ludlow. (December 31.)

Sewerage Works. J. E. Alcock, Clerk to Urban District Council, Mansfield, Notts. (January 2.)

Sludge Main. W. H. Talbot, Town Clerk, Town Hall, Manchester. (January 3.)

Stables, &c. Borough Surveyor, Town Hall, Catford, S.E. (December 28.)

Steel Rails. R. Hyde, Town Clerk, Stockport. (January 9.)

Street Improvements.—R. Brown, Public Offices, Southall. (January 10.)

Tea. F. J. Tootell, Clerk to Guardians, Union Offices, Vallance Road, Whitechapel, E. (December 28.) See advt. in No. 620.

Underground Convenience. H. G. Hills, Town Clerk, Council House, Wandsworth, S.W. (January 9.)

Waterworks. E. C. Hett, 2, Trafford Street, Scunthorpe. (January 6.)

Waterworks Extension. E. R. Owen, Union Office, Llanrwst, N. Wales. (January 12.)

Water Van. G. T. Lewis, Town Hall Buildings, Clacton-on-Sea. (January 11.)

Works and Materials. Henry George Hills, Town Clerk, Council House, Wandsworth. (January 9.) See advt. in this issue.

TO CONTRACTORS.

IT WILL PAY YOU
to Subscribe to

THE MUNICIPAL JOURNAL.

6/6 per year, post free.

Office: 12, SALISBURY SQUARE, LONDON, E.C.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS.
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London, N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE.
15, Hanover Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

ROAD SCAVENGER.
F. COWLEY, C.E.,
Launceston, Cornwall.

SANITARY POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

**** *For conditions of insertion in this column address The Manager,* MUNICIPAL JOURNAL, *12, Salisbury Square.*

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION

IS FAR IN EXCESS

OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL, 12, SALISBURY SQUARE, LONDON.

IRON and WOOD FRAMED BUILDINGS (EVERY DESCRIPTION), BUNGALOWS, CHURCHES

AT LOWEST COST.

CHARLES LEATHER & SONS
(ESTABLISHED 1862),
114, MERTON ROAD, and RAILWAY WHARF,
WANDSWORTH, LONDON, S.W.

WILLIAMSON
ASHTON-UNDER-LYNE,
Telephone 320.

FOR
TICKETS
AND
PUNCHES
FOR
TRAMWAYS, &c.
TICKET NIPPERS.
TICKETS, DATING MACHINES, AND ISSUING CASES
FOR RAILWAYS, BATHS, &c.

THE
LIMMER ASPHALTE PAVING Co. LTD.
(Est. 1871.)

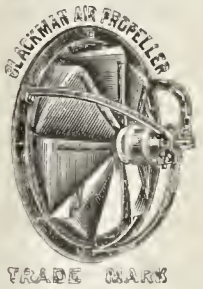
Sole Proprietors of the Montrotier Seyssel Mines (Bassin de Seyssel).

Mastic Asphalte for Floors, Roofs, Breweries, Reservoirs, &c.
LITHOFALT MASTIC PAVING.

Highest Award Sanitary Congress, Glasgow, 1904.

Head Offices: 2, MOORGATE ST., LONDON, E.C.

BLACKMAN



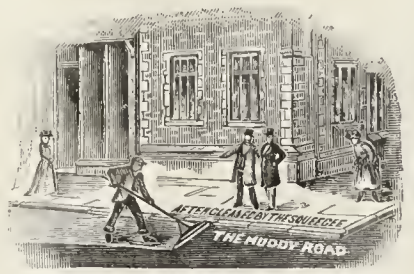
ELECTRIC FANS.

GOLD MEDAL
PARIS, 1900.

TRADE MARK
JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

SHEATH BROTHERS,
SQUEEGEE MANUFACTURERS,

Borough Councils and Railway Companies.



Borough Councils and Railway Companies.

87, CITY ROAD, LONDON.

THE BEST JUDGES OF CIGARS
Now obtain their supplies at
BENSON'S, 61, St. Paul's Churchyard, London.
Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

EQUIFEX DISINFECTORS

SATURATED STEAM (Patent)

Adopted by the Metropolitan Asylums Board for the Brook Hospital; H.M. War Office for the ROYAL VICTORIA HOSPITAL, NETLEY, and by the Governments of India, Victoria, New South Wales, &c.; and the recent Disinfection Stations of the Boroughs of Lambeth, Fulham, Battersea, Brighton, &c., &c.

Rapidity in Operation. Absolute Immunity from Damage by Scorching. Economy in Fuel. Automatic Control and Record of the Work Done.

The only apparatus complying with the recommendations of the International Sanitary Congress, Buda-Pesth, 1894. Only Medal for Steam Disinfectors, Sanitary Institute Congresse, and highest awards wherever exhibited. Over 1,200 in actual use in all parts of the world.

SPRAY DISINFECTORS, for ROOMS, &c., reduces to a minimum the disturbance of Inmates. Cost a fraction of the time and expense required in use of SO_2, and disinfect with certainty. THOUSANDS IN ACTUAL USE.

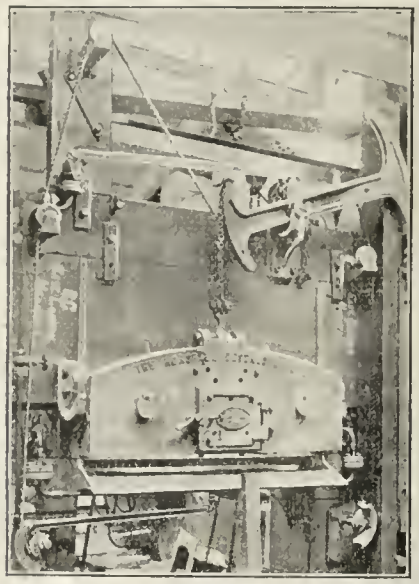
THE PASTEUR FILTER

The only Filter awarded Grand Prix Paris, 1900.

OFFICIAL GOVERNMENT STATEMENT.

"Wherever the Pasteur Filter has been applied Typhoid Fever has disappeared.'

J. DEFRIES & SONS, Ltd., 146 & 147, HOUNDSDITCH, LONDON, E.C.



Portion of Plant for Bloemfontein, South Africa.

Silver Medals Sanitary Institute of Great Britain, 1896, 1902 and 1903.

Gold Medal Brussels Exhibition, 1897.

THE

HORSFALL DESTRUCTOR Co., Ld.

LEEDS,

AND

19, OLD QUEEN STREET, WESTMINSTER, S.W.

Telegrams: {"DESTRUCTOR, LEEDS" "DESTRUCTOR, LONDON"} A B C and Lieber's Standard Codes used.

Telephone: {LEEDS No. 2006 Central. LONDON No. 263 Victoria (G.P.O.)}

NO MORE FIRES from electric wires. IMPORTANT to MUNICIPAL AUTHORITIES.

IMPROVED ELECTRIC WIRING

The only SAFE SYSTEM. ABSOLUTELY PREVENTS all DANGERS arising from the Fusing of Wires. FIRES from this SYSTEM have NEVER OCCURRED.

In Use at Car Sheds of British Tramways, Portsmouth Tramways, London United Tramways, Dublin Tramways, and Municipal Buildings at Glasgow, Newport, Cardiff, Brighton, &c.

Manufacturers: CONDUIT & INSULATION COMPANY, Limited,

Telegrams: "Koming, London." RIVERSIDE ROAD, SUMMERS TOWN. S.W. Telephone: 11, Wimbledon.

The Best Municipal Work of Reference.

FOR ACCURATE, UP-TO-DATE INFORMATION ON MUNICIPAL SUBJECTS AND

STATISTICS AND RESULTS OF MUNICIPAL MANAGEMENT

THE BEST WORK TO CONSULT IS

THE MUNICIPAL YEAR BOOK

Price 3s. 6d. Post free 3s. 11d.

LONDON: EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, FLEET STREET, E.C.

Printed and Published by EDWARD LLOYD, Limited, 12, Salisbury Square, London. E.C.

352.05
MUNJ
C2

THE
MUNICIPAL JOURNAL

No. 622.—Vol. XIII. FRIDAY, DEC. 30, 1904. REGISTERED AT THE G.P.O. AS A NEWSPAPER. One Penny.

Official Advertisements.

METROPOLITAN BOROUGH OF FINSBURY.

TEMPORARY SANITARY INSPECTOR

THE Council of the Metropolitan Borough of Finsbury invite Applications for the position of TEMPORARY SANITARY INSPECTOR. Salary £3 per week. Candidates must possess a certificate from an examining body approved by the Local Government Board. The appointment (subject to certain conditions) may be made a permanent one at a salary commencing at £130, and rising by £10 yearly on approved service to £180 per annum, with uniform, if the service of the person engaged prove satisfactory.

Applications, in candidates' own handwriting, must be made on the official form, which, with a list of the duties, may be obtained either personally or on sending a stamped addressed envelope. The covering envelope of the application form, when sent in, must be endorsed, "Sanitary Inspector," and such form, accompanied by copies of not more than three recent testimonials, should reach me not later than Thursday, 5th January, 1905.

Selected candidates will be required to attend at the Town Hall, but the only expenses which will be recognised will be third-class railway fares.

By order.
G. W. PRESTON,
Town Clerk.

Town Hall,
Rosebery Avenue, E.C.
22nd December, 1904.

COUNTY BOROUGH OF WEST BROMWICH.

TREASURER'S DEPARTMENT.

THE Finance Committee of the Corporation invite Applications for the position of DEPUTY TREASURER.

Candidates must be thoroughly experienced in municipal accounts and finances, including the accounts of a gas undertaking, or other trading departments of a coporation, and must be skilled accountants. They must also have had experience in the control of clerks, and be competent to take charge of the office when required.

Preference will be given to candidates who have passed the examination of the Incorporated Treasurers' and Accountants' Institute, or other equivalent examinations.

Salary £200 per annum.

Further particulars may be obtained on application.

Applications, stating age and setting out the candidates' experience and qualifications, and to be accompanied with copies of three recent testimonials, to be sent to me, suitably endorsed, not later than 10th January next.

THOMAS HUDSON,
Borough Treasurer and Registrar of Stock.

Town Hall,
West Bromwich,
21st December, 1904.

Official Advertisements.

PARISH OF WILLESDEN.

GENERAL ASSISTANT RELIEVING OFFICER.

THE Guardians of this Parish invite applications for the appointment of a GENERAL ASSISTANT RELIEVING OFFICER.

The person appointed will be required to remove the lunatics throughout the parish, and to generally assist the relieving officers in the discharge of their duties.

Salary £80 per annum.

The appointment will be subject to the provisions of the Poor Law Officers' Superannuation Act, and subject to the sanction of the Local Government Board.

Forms of application may be obtained by sending a stamped addressed foolscap envelope to my office as below, and must be returned to me not later than Tuesday, the 3rd of January, 1905.

By order.
J. HUTTON HAYLOR,
Clerk to the Guardians.

Guardians' Offices,
329, High Road,
Kilburn, N.W.
23rd December, 1904.

PARISH OF WILLESDEN.

FEMALE ATTENDANT FOR INFIRMARY.

THE Guardians of Willesden Parish invite Applications for the Appointment of a FEMALE ATTENDANT on the old and infirm inmates at the Workhouse Infirmary, Acton Lane, Willesden.

Applicants, who must have had experience in similar work, must be single, or widows without encumbrance, and between the ages of 30 and 40 years.

Salary £26 per annum, with rations, washing, uniform, and apartments.

No beer will be allowed, nor any amount in lieu thereof.

The appointment will be subject to the provisions of the Poor Law Officers' Superannuation Act.

Forms of application may be obtained by sending a stamped addressed foolscap envelope to my offices as below, and must be returned to me not later than Tuesday, the 3rd day of January, 1905.

By order.
J. HUTTON HAYLOR,
Clerk to the Guardians.

Guardians' Offices,
329, High Road,
Kilburn, N.W.
23rd December, 1904.

COUNTY BOROUGH OF SUNDERLAND

THE Corporation are prepared to receive LOANS of £50 and upwards on security of the Rates of the Borough, at six months' notice or for a fixed period.

For further particulars apply to Haswell Brown, Borough Accountant, Town Hall.

Sunderland.
13th December, 1904.

In replying to Official Advertisements, please mention the "Municipal Journal."

Official Advertisements

CITY AND COUNTY OF BRISTOL.

BRISTOL MUNICIPAL LODGING HOUSE.

APPLICATIONS are invited by the Health Committee for a man (age not to exceed 45) and his wife to act as SUPERINTENDENT and MATRON. Wages £1 15s. per week inclusive. No board (fire, gas, and unfurnished apartments provided).

Application forms to be obtained from the Medical Officer of Health, 40, Prince Street, Bristol.

D. S. DAVIES, M.D.,
Medical Officer of Health.

December 24, 1904.

CROYDON RURAL DISTRICT COUNCIL

TO BUILDERS AND CONTRACTORS.

THE Croydon Rural District Council invite TENDERS for:—

(A) Erection of Cottage, Cart, Tool and Steam Roller Sheds at Stores Depot, Bute Road, Wallington, Surrey.

(B) Erection of Office, Cart, Tool and Steam Roller Sheds in rear of the Parish Offices, Kingston Road, Merton.

Plans and specifications, prepared by Mr. Robert Masters Chart, F.S.I., can be seen, and bills of quantities (for Wallington Depot) and forms of tender obtained at his Office, Union Bank Chambers, Croydon, between the hours of 10 a.m. and 4 p.m., on and after Monday, January 2nd, 1905, on depositing the sum of £2, which amount will be returned on receipt of a bona fide tender; but no application for bills of quantities will be received later than Tuesday, January 10th.

Sealed tenders must be on the forms supplied, and delivered at the Town Hall, Croydon, not later than Wednesday, January 18th, 1905.

Security will be required for the due performance of the contract.

The Council do not bind themselves to accept the lowest or any tender.

E. J. GOWEN,
Clerk of the Council.

Town Hall,
Croydon,
28th December, 1904.

£25 (TWENTY-FIVE POUNDS) BONUS.

GENTLEMAN (27) desires permanent Berth in a Municipal or Urban District Council Office (seaside or country preferred), having many years' experience in all matters relating to Finance. Able to arrange loans. Undeniable testimonials. Willing to submit bona-fides. Reply, in strict confidence, to A. B. C., care of Municipal Journal, 12, Salisbury Square, Fleet Street, London, E.C.

PROMOTION impossible without good Penmanship. Rapid tuition. Particulars for stamp. N. Broadbent (Prizeman and Medallist), Alston's College, Burnley.

(Official Advertisements continued on pages 1048 and 1053).

WILL JENKINS

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

EXPANDED STEEL

For ARMOURED CONCRETE & FIREPROOF CONSTRUCTION

FOUNDATIONS.
WALLS.
FLOORS.
ROOFS.
RESERVOIRS.
SEWAGE TANKS.
CONDUITS.
BRIDGES.
GRAIN SILOS.
&c.

IT SAVES 75 PER CENT. IN BULK OF CONCRETE.

Write for Handbook on Practice, Tests, and Tables of Approved Formulæ or any other information.

Remarkable Example of Cement Plaster Work on Expanded Metal.

THE NEW EXPANDED METAL CO., Ltd.,

Telephone—419 Westminster. YORK MANSION, YORK STREET, WESTMINSTER, S.W. Telegrams—Distend, London.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM.
Edited by ROBERT BLATCHFORD.

You should read "THE CLARION" for reliable information as to

MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century,

You Must Read "THE CLARION."

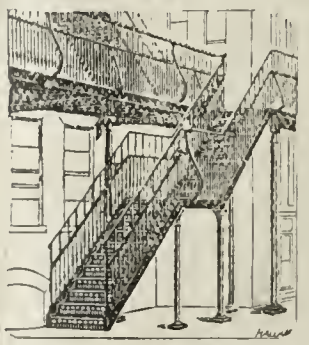
Send for specimen copy to "THE CLARION" Office,
72, FLEET STREET, LONDON, E.C.

Price 1s. 6d. Post free 1s. 10d.

THE LONDON MANUAL, 1904.
THE LONDON MANUAL, 1904.
THE LONDON MANUAL, 1904.
THE LONDON MANUAL, 1904.
THE LONDON MANUAL, 1904.
THE LONDON MANUAL, 1904.

LONDON: EDWARD LLOYD, LIMITED
12, SALISBURY SQUARE, E.C.

ST. PANCRAS IRONWORK



CO., Limited,

SPECIALISTS IN

IRON

FIRE ESCAPE STAIRCASES

CATALOGUES ON APPLICATION.

171, ST. PANCRAS ROAD LONDON N.W.

THE

LIMMER ASPHALTE PAVING Co.

(Est. 1871.) LTD.

Sole Proprietors of the Montrotier Seyssel Mines (Bassin de Seyssel).

Mastic Asphalte for Floors, Roofs, Breweries, Reservoirs, &c.

LITHOFALT MASTIC PAVING.

Highest Award Sanitary Congress, Glasgow, 1904.

Head Offices: 2, MOORGATE ST., LONDON, E.C.

STANLEY.

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

SUBSCRIPTION FORM FOR THE "MUNICIPAL JOURNAL."

Please send me weekly for _____ *months the* MUNICIPAL JOURNAL.

for which I enclose _____

Name _____

Address _____

Cheques and Postal Orders to be made payable to Edward Lloyd, Limited, 12, Salisbury Square, London, E.C.

TERMS POST FREE FOR THE UNITED KINGDOM.

Three Months . . 1s. 8d. | Six Months . . 3s. 3d. | Twelve Months . . 6s. 6d.

ABROAD.

Six Months . . . . . 4s. 4d. | Twelve Months . . . . . 8s. 8d.

THE MUNICIPAL JOURNAL
ESTABLISHED AS "LONDON." TWELFTH YEAR OF ISSUE.

No. 622.—Vol. XIII. DECEMBER 30, 1904.

SELF-EMPLOYMENT.

How Many American Cities are Attempting to Solve the Problem of the Unemployed. Opportunity to Work, Better than Free Soup or Shelter. How Small City Farms and Gardens were Started. Extent of the Movement To-Day. How a Helpless Paralytic Won Health and a Certain Amount of Wealth.

[*By Mr. R. F. POWELL, Superintendent Philadelphia Vacant Lots Cultivation Association.*]

TEN years have elapsed since the late Hazen S. Pingree of Detroit boldly announced that "if we will give the members of Coxey's Army the privilege to cultivate the vacant lots in our cities and have what they produce as a reward for their labour, we can stop this tramping instantly."

The assertion was received by the general public with a good deal of doubt and some derision, perhaps, because they did not see how such results could be achieved. Although no general or systematic effort has been made to try the plan throughout the country, it has been tried most thoroughly in a few cities, especially in Philadelphia, and through it results have been achieved that prove beyond question that Mayor Pingree was right in the main.

First, it need scarcely be said that farming is a great industry—so great that more than half the working people of America are engaged in it. It is the most primary and most essential of all the industries. The demand for farm produce is almost unlimited in extent. It is the one and only industry in which men could all engage and not starve. It is the only industry not already apparently overcrowded. It furnishes more than one-half of all exports shipped beyond our ports. These facts, standing out boldly and undisputed, were, perhaps, the basis of Mayor Pingree's belief. At any rate, the success of the work in Philadelphia and the phenomenal results obtained go to prove that what the great majority of men out of work want is—*opportunity*. In the Philadelphia work, the board of managers have endeavoured at all times to impress this idea, not only upon the general public, but upon the "out-of-work" class as well. This year about 800 families have availed themselves of the opportunity to cultivate gardens. The aim of the board of managers has ever been to bring the work as quickly as possible to a self-supporting basis so as to free it from every possible pauperizing influence, and there have been interesting developments showing that that end is rapidly approaching.

A GERMAN WOMAN, ITALIAN MEN, AND YOUNG AMERICANS WORKING SIDE BY SIDE ON A "VACANT LOT."

From year to year the cost of each quarter-acre garden has been reduced to the contributors, until this year it is believed that not over five dollars per garden will be necessary to complete the year's work, whereas the first year each garden cost the association 18.25 dols. But it is not this reduction in cost per garden alone that causes the board to think that the work

can be brought to a self-supporting basis. Every year since the work began the more efficient gardeners have been encouraged to undertake some kind of self-employment on their own account. Small farms near the city have been encouraged, and many families have not only tried the plan, but have succeeded in many cases far better than when they had regular employment in the shops or factories. It was not, however, until this year that a decided effect upon the gardeners resulted.

Early in the season a group of fifteen families, who had cultivated gardens from three to five years under the association, formed themselves into a club and jointly rented nine acres of land. They subdivided it among the members of the group. Some families adhered to the quarter-acre garden, others took half and some three-quarters of an acre, and still others worked for the president of the club for wages, and he in turn undertook the cultivation of all the land that had not been parcelled out. They have paid every expense in connection with the work, including the rent (15 dols. per acre), and the season is now so far advanced that success of the enterprise is fully assured. Those who worked for wages have received at the rate of from 9 dols. to 12 dols. per week, according to their skill.

Better than Current Wages.

The gross return from the nine acres will not fall far short of 3,000 dols. in value, or 200 dols. per family. When it is considered that the men engaged in this enterprise are largely men who could not find other steady employment at scarcely any price, and that they are here engaged but about half their time, and then for only about seven months in the year (April 1 to November 1), and that even thus only partially employed, they are able to make more than half the average wage of the able-bodied younger men engaged in other pursuits, it is clear that if sufficient land had been placed at their disposal to fully employ their whole time, they would earn a far better subsistence than the ordinary labourer can at current wages.

D. F. Rowe, who is manager of this graduate's farm, was a helpless paralytic when he came five years ago to the association to ask if his two little grandchildren might cultivate a plot. He helped them by pulling the weeds from among the little plants, showing the children (one seven years old and the other eleven) how the work should be done. He immediately began to improve in health, and at this writing is the manager of this nine-acre farm and is cultivating more than five acres of land on his own account. The proceeds of his last year's work on the vacant lot gardens was about 400 dols. This year it is perfectly safe to say that he will do much better. But the family look upon the improvement in his health (for he now walks without even a cane and does much of the work on his five-acre plot) as being of far more importance to them and to him than the proceeds from his garden. Mr. Rowe fully expects that next year four or five of the ex-gardeners of the association will join his group.

Digging Without Permission.

In another section of the city the demand for gardens was so great, that more than 75 families were left on the waiting list for want of sufficient gardens, notwithstanding the fact that there were more than 200 in that immediate section. Adjoining the association's gardens was a tract of 18 acres not in use, but its owner was unwilling to loan it to the association. Many of the families begged for gardens on this plot, saying they would not in any way injure it, &c., but not having authority to use it, the board declined to touch it. Then one of the applicants on the waiting list decided not to wait longer, boldly staked off a little plot on this 18 acres, and began digging it up, saying that if the owner drove him off, well and good, but he was going to take his chances. He had scarcely begun work when others began digging and then others, each staking off what he wanted. In two weeks the whole 18 acres were taken up, and more than 60 families were at work. The owner was notified, became interested, and allowed them to proceed. No finer gardens could be found in the city, and every expense connected with them has been paid by the cultivators. The results will amount to at least 20 cents. per hour for every hour devoted to the work.

The association gives no alms, but it stands ready to give all out of work employment on demand, at a wage of 1.25 dols. per day. The produce cultivated by this class of labour is sold and the proceeds are turned into the treasury. The first year there was some doubt as to whether sufficient returns could be secured from the crops to pay such a rate of wages, considering that most of the men knew nothing about farm work, and that they were, as a rule, otherwise deficient on account of age, ill-health, &c.: but when a balance was struck at the end of the first year, it was discovered that had a wage of 28 cents. per hour been paid, there would have been no loss.

Not Charity but Opportunity.

At the end of the second year it was shown on a somewhat larger operation that a wage of 40 cents. per hour might have been paid without causing a deficit in the association's account. This is the fourth season that this feature of the work has been in operation, and at this writing there is every prospect that the experience of the previous years will be repeated.

As an educational force, vacant-lot gardens and school gardens have no superiors. The keynote of the Portland Conference of Charities, if any one phase of helpful endeavour was emphasised more than another, was that of "settlement work"—"the opening of opportunities to men for both work and play, and kindly advice or instruction as to how to put these opportunities to the best use." The injunction, "by the sweat of thy brow shalt thou eat bread," is being interpreted more and more to mean that to eat thy bread by the sweat of other people's brows is wrong and sinful in the eyes of both God and man. Every charity worker and teacher seems to have become fully imbued with the idea that a life of usefulness is the only honourable life that one can lead—an idea which has permeated educational work as well—in the kindergarten, manual training, domestic science and agricultural schools. But men cannot do if no opportunity is open to them.

It is this idea, that it is better to give men an opportunity to work where they can make good wages, than it is to give them soup or shelter, that brought forth vacant-lot gardens in Philadelphia and has made of it a growing success.

BOURNEMOUTH AND B.E.T. CO.

POOLE ARBITRATION AWARD.

THE Bournemouth Corporation has received the award in the tramway arbitration case to determine the amount to be paid by the Corporation for the tramway undertaking of the Poole and District Electric Traction Company, Limited. The amount claimed by the company was £427,619; the valuations put forward on behalf of the Corporation varied from £55,000 to £68,000. The amount awarded by the umpire (Mr. Justice Lawrence) is £112,000, the Corporation to pay the costs of the proceedings. Though the claim was regarded as exorbitant, and its announcement received with something like sensation, the award is considered satisfactory, the amount being below even the most sanguine expectations on the part of members of the Corporation.

The tram line of the Poole Company (a company in which the British Electric Traction Company holds a considerable proportion of the capital) is 3¾ miles in length, of which 1¾ miles is in Poole and the remainder in the urban district of Branksome. The cost of construction was about £64,000. The line was opened on April 6, 1901, and carried during the remainder of that year 1,558 passengers. In 1902 it carried 2,118,686, and in 1903 the passengers carried numbered 2,428,230. The line was originally provided with 11 cars, but 17 were in stock at the time of the arbitration proceedings this year. From April 6, 1901, to the end of that year the receipts were £10,642. In 1902 the amount was £11,409 and in 1903 £15,540. In addition to this existing tramway system the Corporation had to acquire from the company certain authorised extensions, and the company also claimed the value of certain running powers granted to it in connection with the Bournemouth Corporation Tramways. In its claim the company placed the value of the existing line at £224,800.

In addition to the acquirement of this undertaking, the Corporation is extricated from difficult positions in which it found itself, owing to rights acquired by the company regarding tramways in the district. The company had a claim on the first and most profitable section of the Bournemouth Corporation Tramway system. The company opposed the Corporation's Bill, and was given power to construct this particular section if the Corporation did not "substantially commence" the work by a certain date. The company was also given running powers. The company contended that the Corporation had not complied within the time specified, and that its powers lapsed. Legal proceedings followed in the Court of Chancery and the Court of Appeal, the Corporation in the first case being held to have complied, but eventually the company obtained an injunction to prevent the Corporation from proceeding with the work of construction. This injunction was suspended for a time, and while an appeal to the House of Lords was being talked of an agreement was arrived at for the purchase of the company's undertaking at its fair market value as a going concern, the basis being the balance-sheet for 1901. Widely different interpretations were put upon the agreement, and it was contended for the Corporation that some of the authorised extensions for which the company claimed large sums were quite worthless. The reduction of the company's claim to about one quarter, is regarded as a victory for the Corporation. It is expected that the entire cost will be covered in a total sum of £120,000.

THE Shipley Wesleyan local preachers have forwarded a letter to the Shipley District Council, protesting against the continuance of the licence of the Canal Tavern—a beerhouse forming part of an estate recently acquired by the Council for sewage works extensions. It was reported this week that the letter had been before the Sanitary Committee, which had decided to recommend the Council to maintain the licence.

UTILISING WASTE.*

The Economic Advantages of Combining Dust Destructors and Electricity Works. Wise Words on the Construction of Destructors. Not a Few Combined Works Show Poor Results Through Careless Handling of the Refuse. Electricity Generated Credited to Destructor on Basis of Actual Cost. Undoubted Gain Affected by Combination, but Every Case should be Considered on its Own Merits.

IT is fairly obvious that in an undertaking of moderate size the combination of electricity works and destructor on the same site should resnlt in several economies. These are embraced under site, building, chimney, and plant.

SITE.—In most cases the actnal ground covered by the joint undertaking is less in area than that covered by two entirely separate undertakings; and beyond this, some boundary space, approach road, and yard space would be considered indispensable in each undertaking. It is not easy to say exactly what land space is saved in any particular combined works, but, as a rough approximation, it will generally be found that one-third of the land space reqnired for the separate undertakings is saved by combination.

BUILDINGS. — An entire boiler-honse is sometimes saved; on the other hand, the destructor with boilers will cover more space than one without. Sundry offices, mess-room, lavatories, weigh-house, and weigh-bridge would all reqnire to be duplicate in separate works, and often no inconsiderable saving is effected in bonndary wall and street paving.

CHIMNEY. — In separate works separate chimneys would be erected, and a saving of a complete stack is therefore effected by combination. If a distinction is to be made, as would be right in large works, it is the destructor chimney that is saved, as this wonld generally be less costly than one to serve for the electricity works

PLANT. — Some boilers are saved to the electricity works, together with steam and feed piping, pumps, &c. In large works a generator to supply motors, and perhaps fans and lighting, are saved to the destructor; on the other hand, an unnsual length of steam main may be necessary.

Apportioning Capital Outlay.

So many different methods of apportioning capital outlay are in vogue, that I would venture to suggest the following as a basis of arrangement in new works. Opinions will probably differ on this point, but I will give my suggestions for what they are worth, in the hope that the already heavy labours of electricity and sanitary committees may in one or two cases be somewhat lightened when the burning question of apportionment of capital expenditure arises.

SITE.—Actual value of ground space covered by the joint nndertaking to be equally divided; spare land available for extensions to be debited to each undertaking in accordance with probable future requirements.

BUILDINGS AND CHIMNEY.—An estimate of the cost of buildings for each undertaking erected separately should be got out, the difference between these two added together, and the actnal cost to be divided in the proportion of the estimnte. The preparation of these estimates would involve far less labour than several protracted discussions of a large number of overworked town councillors.

PLANT.—All boilers save one should be debited to the electricity works, together with steam and feed piping, pumps, &c. The entire saving in piping and pumps to the destructor would be a fair set-off against additional flues required by the additional boilers. The saving of an electric generator and the cost of its up-keep and attendance can best be dealt with by the electricity works making a small charge to the destructor for electricity supplied.

Adjustment of Cost.

The cost of maintaining the buildings and chimney would be apportioned on the basis of the original estimate until extensions took place, and then the additional outlay wonld be debited to the department extended, and the cost of up-keep apportioned accordingly. I do not pretend that this is by any means a perfect adjustment, but there must of necessity be a certain amount of give and take in partnership of any description.

I therefore put forward a strong plea for the careful analysis and publication of the costs and returns of both concerns separately, and this in the clearest possible manner. I say this feelingly, for many a long hour have I spent in unearthing information from annual reports which might easily have been set out clearly and simply in the first instance.

Difficulties and Points in Common.

Some of the difficulties to be met with in the ntilisation of refuse-raised steam for electrical purposes are: uncertain delivery of the refuse, the varying valne of the refuse from day to day and hour to hour, and the varying percentage of moisture contained; also in winter snow may prevent collection for many days; fog sometimes greatly hampers collection; and holidays occasionally prevent collection for days. By careful management and forethought some of these difficulties may be largely neutralised, but it is merely sufficient to call attention to them to demonstrate that only under favourable conditions may a combined plant be expected to run for any length of time on refnse alone.

The points in common with all modern high-temperature destructors are, forced draught preferably heated, means of drying the refuse in part before placing on the grate, and a combustion chamber in which all gases are mixed and brought to a state of high incandescence, and their temperature equalised so far as possible.

Steam Blast.

Steam blast for producing forced draught is claimed to have advantages over simple air blast in that it produces water-gas in passing through the incandescent fuel, which materially aids combustion; it also tends to keep the fire bars cool, thus giving them an appreciably longer life, and clinkering is rendered easier. These claims have been sufficiently verified, but it is to be doubted whether the larger percentage of steam used in practice secures an adequate return. The Horsfall Company claims that its system of hot steam blast requires 5 to 10 per cent. of the total steam raised, but no figures, test or otherwise, have come into my hands showing anything approaching such results. Messrs. Meldrum Bros. will guarantee that the percentage of steam with hot air blast provided through a regenerator shall not exceed 15 per cent. of the total steam generated, and they claim that it is often as low as 12 per cent. It is an extremely difficult matter to measure the steam blast except on specially arranged tests, but it is a very simple matter to measure the power used by electrically driven fans. However, it is a question that does not turn entirely on the relative consumption of power, as the improved combustion with fuel of high calorific value may outweigh the extra percentage of steam used with steam blast. This is one of the interesting points upon which additional information would be of value, but I venture to think that it will be a hard matter to justify the application in the blast of 20-40 per cent. of the total steam generated.

Economy in the blast is of considerable importance, as the absorption of power is continuous, and, if a wasteful form be used a large percentage of the power available is wholly lost.

Air Leakage.

The prevention of air leakage is another important matter. The clinkering, charging, and access doors of the furnaces and necessary openings in the boilers are all potential sources of leakage, and not a few recently-erected destructors have their efficiency much impaired by faulty design or construction in this respect. Serions air leakages and consequent loss of efficiency sometimes result by the development of cracks in the brickwork of seatings and flues, and it is often a most difficnlt matter to localise and stop such leaks.

Long and badly-arranged flues are another prolific source of lost power. A principle never to be lost sight of in the construction of destructors is that after the perfect cremation of the refuse has been secured, the heated gases should be applied directly to the boiler without having to pass through long flues. Besides being a possible source of air leakage, long and badly-placed flues sometimes become very damp, and a large part of the steam-raising value of the refuse is absorbed by the evaporation of water outside the boilers. Again, the charging arrangements are sometimes crude, and not designed or constructed with a fnll appreciation of the problem involved; the furnaces of the boilers are often a source of trouble through air leakage and unsatisfactory combustion effects, and not a few combined works show poor results through careless and indifferent handling of the refuse and management of the burning.

Crediting Electricity to Destructor.

Very varied are the methods in vogue for crediting the destructor for electricity generated. In every undertaking the average coal consumption can be ascertained from time to time when the destructor is out of use, or is purposely shut down, and then such average figure could be taken as a basis for ascertaining the units generated by each undertaking. In the larger works there really onght to be no excuse for not ascertaining what electricity should be credited, as the feed of the destructor boilers can with small cost be measured, and the average pounds of water per unit generated would form the basis of the adjustment; this method is less simple, perhaps, where steam blast is used in the furnaces, but a fair percentage of this could be agreed upon and deducted.

The cash credit to the destrutor for electricity generated should be on the basis of the actual coal cost; personally I can see no reason why the full ascertained coal value should not be credited as is the case at Hackney. It is often suggested that, owing to variations in steam pressure and other causes, refuse-raised steam is of less value than coal-raised steam, but on a large output surely this cannot be a matter of moment. Then, again, it is suggested that the dust and general nuisance from the destructor causes extra work and increased repairs; judging from my own observations this would appear to need demonstrating.

Where Improvements may be Effected.

The sale of steam for other purposes is a most difficult item to adjust in the absence—to the present time—of any means of measuring the quantity delivered to baths, laundries, disinfectors, etc. Here again I think the Bamber steam meter may be of great value.

Great advances have been made in the problem of utilising waste heat from burning refuse in destructors since the pioneer works were started. These results still leave room for substantial improvement—(a) by closer attention to the details of construction of furnaces and flues, and the general arrangement of the plant; (b) by improving the methods of handling and burning the refuse; (c) by careful utilisation of the steam generated, and the adoption of an economical form of blast.

Given snitable conditions, there is without doubt a substantial gain to be effected by the combination of electricity and destructor works; but owing to the variation in the calorific value of refnse in different localities, and to other special local considerations, every proposed case of combination needs to be considered on its merits by persons qualified to make an independent and intelligent inqniry. The various and in some cases crude methods in vogue of adjusting accounts between the two works need to be systematised, and it is highly desirable that the results obtained be separated and recorded with accuracy, so as to give, so far as possible, a true record of the financial position of both works.

* From a paper read by Mr. W. P. Adams before the Institution of Electrical Engineers.

EDUCATIONAL NOTES.

Devonshire and the Press—Bonuses for the Clerks. Enfield Encourages Temperance. No More School Fees in the Metropolis. Saving Bank Profits at Manchester. Stockport's Differential Rating Bill. Whitehall Presses Torquay. Yarmouth and Juvenile Smoking.

Bradford.—After a long debate, the resolution in favour of the rates being used for feeding school children was rescinded.

Bristol.—The Education Committee is considering the desirability of opening school banks in the public elementary schools of the city.

Cardiganshire.—The County Education Committee has drawn up and approved a list of duties which are to be entrusted to the school managers under the education authority.

Cheshire.—A body of voluntary school managers refused to increase the staff. The Education Committee has now decided to appoint two additional teachers in order to avoid losing the grant, which had been threatened by His Majesty's Inspector.

Devonshire.—The chairman of the Education Committee reported that he had inquired with reference to the premature publication of reports by the Press, and had found that there was often an intelligent anticipation by the Press. He had made it a practice to send the reports out to the Press by the same post as that by which they were sent to the members of the Council. The County Council has decided that the clerks in the Education Office should receive a bonus of 10 per cent. upon their salaries for the past year in consideration of the extra services rendered by them in administering the Education Acts.

Enfield.—The Education Committee has sanctioned lectures on Temperance being given by a Band of Hope Union lecturer in the Council schools, subject to the times being arranged with the head teachers. The privilege is to be extended to Voluntary schools if asked for.

Ilford.—The County Education Committee has authorised the Ilford Advisory Committee to prepare plans for an extension of the existing secondary school. The cost of the new buildings and fittings not to exceed £5,000.

London.—The County Council has decided, by a large majority, to abolish all fees in Voluntary schools from 31st March, 1905. An appointment of principal assistant to the executive officer of the Education Committee is to be advertised. The salary ranges from £400 to £600.

Manchester.—The deposits in the school savings' banks reached the large sum of £23,000 last year. From the interest the sum of £500 had been spent in providing free meals and spectacles for poor children. In addition, the fund had also lent £2,500 to the Corporation.

Newcastle.—The Education Committee has informed the Voluntary school managers that, in consequence of the decision of the Local Government Board, the arrangement made with them for the discharge of the committee's liability for "wear and tear" repairs, must end as from 30th September, 1904, and that in future the managers must carry out their own repairs and send in the claims.

Plymouth.—From a return presented by the secretary to the Education Committee, there would appear to be 1,800 pupils who are attending the proprietary and private schools in the town.

Somersetshire.—The Education Committee has agreed to relieve the school correspondents of the duty of filling up the salaries sheets of the teachers, who are to do this themselves in future.

Southampton.—The Education Committee has decided to form a Dinner Committee to consist of six members, whose duty it would be to arrange for the provision of breakfasts and dinners to necessitons children, subscriptions being invited for that object. A resolution declaring in favour of State maintenance of children in public elementary schools was defeated by a narrow majority.

Stockport.—The Corporation has decided to promote a Parliamentary Bill to include provisions for levying the education rate on the adjacent areas on a differential basis.

Swansea.—The Education Committee has agreed to the appointment of an inspector of schools at a salary of £350, rising to £450 per annum.

Torquay.—The Education Committee has been informed by the Board of Education that if it persisted in advising the education authority not to recognise the Cockington schools in the manner proposed (see "Notes" in issue of 9th December), the Board would 'proceed to declare the Council in default under the Education (Default) Act, 1904.

Yarmouth.—The Education Sub-Committee has decided to ask the parents of the scholars to co-operate in checking the evils of juvenile smoking. It has also requested its teachers to discourage the habit of cigarette smoking amongst the boys, and to refrain themselves from smoking in the vicinity of the schools.

Yorkshire (North Riding).—The Education Committee has decided to report to the County Council: "That, for the purposes of supplying or aiding the supply of education, other than elementary, during the financial year, 1905-6, the Education Committee deems it necessary, in addition to the funds available under Sec. 1 of the Local Taxation (Customs and Excise) Act, 1890, to raise by rate such further sums as will be produced by a rate not exceeding ½d. in the pound."

EXTENDING A HANDSOME STREET.

BIRMINGHAM'S finest street is at length open for traffic from end to end. Until quite recently Corporation Street did not extend beyond 851 yards. Every plot of land is built upon, and the thoroughfare, 66ft. in width, is one of the handsomest to be found in the centre of a large town. The original intention was to make a longer street, but the Corporation postponed the enterprise from time to time mainly on the grounds of economy. The Local Government Board, however, some eighteen months ago, intimated that it would be desirable to complete the work as soon as practicable, on the ground that land had been purchased for the express purpose. The City Council, after some protest, gave the necessary instructions for the undertaking to be carried out in its entirety in the summer of last year. The estimated cost of the extension is £22,000.

SIR GEORGE WHITE, of tramway fame, who has recently been elected president of the Bristol Infirmary, has devised a scheme of tramway collecting-boxes, which, it is believed, will clear off a deficit of £5,000.

AN amusing instance of the Government's anxiety to keep down municipal indebtedness cropped up last week at a Local Government Board inquiry into an application by the Blackburn Corporation for permission to borrow nearly £9,000 for the erection of new baths. Colonel Coke, the inspector, asked the cost of the electric lights for the baths, and was told a shilling each. He explained, amid laughter, that in accordance with the special instructions of his Board, the amount of the loan would have to be decreased by £15, the cost of the 300 lights, because they could not possibly last as long as the building.

TAX LAND VALUES.

THE CASE OF FULHAM.

(FROM A CORRESPONDENT.)

IN 1886 the rateable value of the metropolitan borough of Fulham was £336,624 per annum. Eighteen years have sufficed to raise these figures to £850,920. An increase in the rateable value of 155 per cent. in 18 years is a remarkable, nay, an astounding development.

The land already built over in 1886 was worth at that time £1,000,000 sterling, yielding an annual income of £40,000 out of a total of £336,624 for land and building together, as assessed in the rate books. Another £1,500,000 worth of land value had accrued in Fulham up to 1886 from the uncovered land. That is to say, the land not then built over was worth one and a-half times as much as that already covered and already rated. The table, giving population and number of houses in 1886 and 1904 respectively, will help us to a good idea of the true state of the case.

Year.	Number of houses.	Population.
1886	9,000	65,000
1904	22,000	150,000
Added in 18 years	13,000	85,000
Percentage increase	145 %	130 %

The capital value of the land in Fulham in 1886 was £2,500,000 (£1,000,000 of which was producing income from the usufruct). To-day it is £5,235,000, of which £4,660,000 is yielding an income from the usufruct, and £575,000 is represented by uncovered land. Here we have a total capital increment of £2,735,000 of land value in eighteen years; what Professor Alfred Marshall so aptly terms "public value."

Dividing the total capital increase of £2,735,000 by the number of years (18) we arrive at the average annual capital increase of £152,000—a startling figure. Over and above the actual yield from the land of Fulham as it was in 1886 an average capital increase of £152,000 per annum has evolved.

The metropolitan borough of Fulham requires £850,920 for the year 1904 to carry on the public service (so profitable to the owners of land values), and the local loans now amount to £407,471, of which £363,000 has been borrowed during the eighteen years. The interest and sinking fund charges amount to £32,540 per annum. In 1886 they were £6,392 per annum.

If, eighteen years ago, public policy had diverted the rising tide of land values into the local exchequer, a great part of the present rates upon buildings and improvements need not have been levied, and industry and enterprise proportionally encouraged. The rates upon improvements would have been transformed into rates upon land value. In other words, an average annual capital increment of £152,000 from growing land values would have been intercepted to flow into the local exchequer for eighteen years from Fulham land. It would not then have been necessary to draw such large sums from rates on buildings. The rateable value of buildings and improvements (irrespective of sites) was £296,624 per annum in 1886. This is allowing £40,000 per annum for sites. To-day the rateable value of buildings and improvements (irrespective of sites) is £710,920 per annum. The rateable value of sites is £140,000 per annum. These sums make up the total assessments in 1886 and 1904 respectively. The rates were 5s. 11d. in the £ in 1886, the following year they were 5s. 6d. in the £, to-day they are 7s. 4d. in the £.

The borough of Fulham need not have been indebted £407,471 for local loans.

It is a startling and momentous fact that £2,735,000 worth of land values in Fulham (heaven sent revenue) might have been turned into the municipal purse instead of being given away.

The explanation of unemployed labour is to be found in the power that exemption of unoccupied land from rating gives to land proprietors to successfully oppose the necessary healthy expansion over unoccupied land until the value rises high enough to return an immense dividend to the speculator in sites or acres. Meanwhile there is want of employment, poverty, and trade depression. Rating land values is the true remedy for these evils.

HOUSING PROGRESS.

Official Monthly Record of the National Housing Reform Council. A Review of the Year's Work. The Government and the Amendment of the Public Health Laws. The Bye Laws Question and its Relation to Housing. What the Council has set itself to do.

THE detail work of a reform organisation is, as a rule, of interest only to the supporters of it, and, for this reason, no attempt has been made to fill the space, so kindly placed at the disposal of the National Housing Reform Council by the Editor, with a record of the ordinary routine work of the council. With the closing of the year a brief review of the work accomplished during the past twelve months may, however, be of interest, not only to the members of the council, but to many other readers of the *Municipal Journal*.

Parliamentary Work.

In the King's speech, delivered at the opening of the last session of Parliament, reference was made to the introduction of a new Public Health Bill, to further amend the Public Health Act of 1875.

Towards the end of the session a deputation, consisting of Sir John Gorst, Hon. Claude Hay, M.P., and Henry R. Aldridge, waited upon the President of the Local Government Board on the subject, and, after learning that the Bill would be deferred until the 1905 session of Parliament, asked him to receive a deputation for the purpose of submitting to him a series of suggested amendments.

Mr. Long very readily consented to do this, and the suggestions have been forwarded to him. These have been carefully prepared by the advisory committee (appointed at a House of Commons' meeting last year) which consists of the following members:—Sir John Gorst, M.P., Hon. Claude Hay, M.P., Dr. T. J. Macnamara, M.P., Right Hon. J. G. Talbot, M.P., John T. Middlemore, M.P., William Thompson (Richmond), B. Seebohm Rowntree (York), John H. Barlow (Bournville Village Trust), T. C. Horsfall (Manchester Citizens' Committee), Constance Cochrane (Rural Housing Association), W. F. Craies (Mansion House Council on Dwellings of the Poor), Robert Donald, Albert Wyles (Derby Housing Association), and Henry R. Aldridge, secretary, National Housing Reform Council.

The committee has had the valuable advice of several eminent medical officers of health, including Dr. Cameron (Leeds), Dr. Scurfield (Sheffield), Dr. Eustace Hill (Durham County Council), Dr. Williams (Plymouth), and Dr. E. M. Smith (York). Alderman Gray (York), Mr. J. P. Brown (Plymouth), and many others have also given willing help. Mr. Long will, early in the New Year, receive a deputation to discuss the details of these suggestions, and immediately thereafter it is hoped that they will be published.

Conferences.

During the year three large district conferences have been arranged by the council, viz.:—At Plymouth (for Devon and Cornwall), at Nottingham (for the North Midlands), and at Bournville (for the West Midlands). The council also took a share in the organisation of the conference held in connection with the Trade Union Congress at Leeds.

All these conferences were thoroughly successful. The response to the invitation sent to municipal authorities to be represented at the Bournville Conference was specially gratifying, the following municipalities being represented: Birmingham, Manchester, Salford, Leeds, Bradford, Halifax, Sheffield, York, Hull, Newcastle-on-Tyne, Bristol, Wolverhampton, Northampton, Brighton, Wrexham, Reading, Rugby, Swindon, Coventry, Wigan, and Burnley. Several district councils were also represented. Among the housing and other reform organisations sending representatives may be mentioned Liverpool Housing Associations, Sheffield Health Association, Sheffield Association for Sanitary Reform, Citizens' Association (Manchester), York Health and Housing Association, Allotments and Small Holdings Associations, and the Local Government Reform League.

The following resolution was passed at this Bournville Conference:—

> That this conference respectfully desires to draw the attention of the President of the Local Government Board to the pressing need for:—
> (1) Such measures as will effectually enable local authorities to secure that all new housing areas shall be planned to ensure an ample provision of light and air space, gardens, &c., thus rendering impossible the development of new slums.
> (2) Increased and more effective powers for dealing with the housing question in rural districts.

The deputation above named, headed by Sir John Gorst, placed this resolution before Mr. Long, who expressed his sympathy with it, and his recognition of the evil resulting from the crowding of new houses on insufficient areas.

At the Leeds conference over 500 workmen's representatives showed by their presence that the need for better housing conditions is adequately recognised by leading members of the great trade unions.

Many smaller conferences and meetings have been held, with uniform success.

Literature.

Apart from the publication of a second edition of "The Housing Handbook," by Councillor Thompson, no new literature has been published by the council during the year. The character of the demand for "The Housing Handbook," however, proves that it has taken a leading place amongst the practical handbooks on the subject. It is specially mentioned in the report of the Committee on Physical Deterioration. Two of the most valuable reform books of the year have been published by the Citizens' Association, Manchester, which is affiliated to the National Council. These books, "Housing Conditions in Manchester and Salford" and "The Example of Germany," have exercised a valuable influence on public opinion, not only in Manchester, but in other parts of the country, and Messrs. Horsfall and T. R. Marr have rendered a valuable service to the movement in compiling them.

Progress of the Movement.

Owing largely to the high rate of interest charged for municipal housing loans the actual constructive work performed by local authorities has not been so great during the past year. The depression in trade has also perceptibly checked the demand for new houses.

The check is, however, only a temporary one, and will pass away with the return of better trade. Meanwhile, the council has been devoting special attention to the subject of the better planning of all new housing areas and to the needs of the rural labourer.

At all the conferences held this year the principal resolution has been devoted to the first of these points. Its vital importance is beyond question. To allow new slums to be developed whilst struggling to get rid of the burden of existing slums is the height of municipal folly. Foolish as this action is, it is, however, quite true that the bye-laws of many local authorities are so badly framed that streets of workmen's dwellings are being erected with such inadequate air and sunshine space around them that they must inevitably become slums. The great development of public opinion on this point is therefore very welcome. It is a most significant and striking proof that real progress is being made in public opinion. The work of giving effect to this public opinion, and securing the complete remodelling of the codes of bye-laws of local authorities, is a very great one, and will keep housing reformers busy for many year, but a good start has been made. The subject of rural housing needs has also received a good deal of attention. Special stress has been laid on the great economic difficulty experienced by housing reformers in rural villages. The wage standard of the labourer is so low that he cannot afford to pay the rent for a decent cottage. It is true that in some country districts the rural bye-laws are unnecessarily stringent in regard to the choice of materials, safety against fire, &c. More than two years ago, Councillor Thompson, speaking on behalf of a deputation appointed by the council, brought this need for modification clearly before Mr. Long.

The modification of bye-laws will not, however, remove the chief difficulty. The only way in which the housing problem of the agricultural labourer can be adequately dealt with is by the betterment of his wage condition. For this reason the need for small holdings under local authorities has been strongly urged by the council, and at the Nottingham Conference Mr. R. Winfrey was specially invited to give an account of the successful work achieved in this respect in South Lincolnshire.

Membership of the Council.

The progress of the council during the year has not been as great as was hoped in regard to membership and finance. This is mainly due to the fact that more attention has been given to the organisation of conferences, meetings, and deputations than to the equally necessary work of building up a strong membership and an income adequate to the work. The former work has, however, won the goodwill of so many leading men that the accomplishment of the latter is only a question of organisation and time.

Mr. George Cadbury has during the year given generous help, and the council has now members and friends in most of the large cities in the kingdom. Affiliated councils and societies are doing good work in Liverpool, Manchester, Rochdale, York, Derby, Plymouth, Watford, &c. The Durham and Northumberland miners have handsomely helped the affiliated committees working for housing reform in these two counties by making grants of £100 each during the past year. Other trade unions have given valuable help to the national work.

The Programme of the Council.

In conclusion, it may be of value to again state the objects of the council. These were drawn up in 1900, and are as follows:—

To advocate and work, on non-party lines, for

(1) The usage and extension of the powers already possessed by local authorities (under the Housing of the Working Classes Act, 1890, and other Acts).

(2) The extension of co-operative enterprise in regard to the provision of house accommodation.

(3) The conferring on local authorities of power to compulsorily acquire (and hold) land, both within and beyond their borders, at a price based on the assessment of such land to local and imperial taxation; such land to be then used for building purposes or let with security of tenure, under conditions which shall render impossible either the overcrowding of people in houses or the overcrowding of houses on land.

(4) The taxation of land values.

(5) The granting of increased powers to local authorities to acquire land to be re-let as small holdings or co-operative holdings at reasonable rents to working-men.

(6) The increase, cheapening, and quickening of the means of transit by tram and rail, through the exercise of either public ownership or public regulation.

The council has since its establishment at least justified its existence. It has carried on a valuable work of public education which has won recognition and support from many friends. It enters on a new year with a great task to do, a great mission to fulfil, and will very heartily welcome the support of any who agree that in the building up of a great national life it is of supreme importance that the homes of the people should be well built, well planned, well supplied with sunshine and pure air, have around them enough of our "Mother Earth" to enable the children to play happily, and be in every way capable of providing a fit "temple" for that family life without which no lasting strength of individual character can be secured.

HENRY R. ALDRIDGE, Secretary.

NOTES AND ANSWERS.

"Interested" Councillors and Their Illegal Vote. When no Building Bye-Laws are in Force in a Parish and Urban District. Disqualifications of the Enrolment of Burgesses and Parochial Electors. Municipal Banking and the Regulations on the General Borrowing Powers of Local Authorities.

*** Queries intended for this column should be addressed to the "Legal Correspondent," MUNICIPAL JOURNAL, 12, Salisbury Square, E.C. They should be written on one side of the paper only, and be signed by a nom de plume or initials, the real name and address of the correspondent being written on the back of the paper.*

587. **COUNCILLORS PECUNIARILY INTERESTED IN QUESTION BEFORE THE COUNCIL Legal Consequences.**—(1) In a certain town the local authority owns the electric light works, but not the gas works. A resolution was moved in the council that the whole of the public buildings should be installed with electric light. On the vote being taken, was it legal for members of the council who were interested in the gas company to vote? If not, has a member any power, other than taking legal proceedings, to question such votes?

(2) Also, a local authority, in promoting a Bill, inserted a clause for power to supply electrical fittings. A member of the council, who carries on the business of an ironmonger, and is interested in supplying gas and electrical fittings, moved its deletion. Was he acting legally in doing so?

"E. C."

(1) Sec. 22 (3) of the Municipal Corporations Act, 1882, provides that "a member of the (town) council shall not vote or take part in the discussion of any matter before the council or a committee in which he has, directly or indirectly, by himself or by his partner any pecuniary interest." The councillors interested in the gas company were certainly acting illegally in voting on the resolution as to supplying the public buildings with an electric installation, or in taking part even in the discussion thereon. No summary remedy is provided by the Act of 1882 in case of infringement of the regulation quoted. The proper procedure would seem to be to appeal to the mayor or chairman at the council meeting at which the resolution is being moved, discussed, or voted on, to rule against the interested councillors taking part in the proceedings.

(2) The above remarks apply to the case of the ironmonger moving the deletion of the clause in the proposed Bill which seems to affect his interests. The mayor or chairman should, we think, decline to allow the councillor so interested to move this resolution, though, if he does move it, and vote thereon, and no objection is made at the time, it does not appear that any legal remedy or penalty has been provided to invalidate the vote or proceedings, or punish the councillor concerned for infringing the statute.

588.—**MAY THE LIGHTING AND WATCHING ACT BE ADOPTED FOR PART ONLY OF A PARISH?**—I am instructed by the local Ratepayers' Association to ask you the following question: We called a parish meeting to adopt the Lighting and Watching Act in November last. A poll was demanded, but the Act was not adopted. The scheme was to light the whole of the parish. Can we define an area, and call another meeting to adopt the above Act for part of the parish?—"HON. SECRETARY."

By virtue of Sec. 73 of the Lighting and Watching Act, 1833, that Act may be adopted for a part only of a parish. Where there is power to adopt any of the adoptive Acts, such as the Act of 1833, for a part only of a rural parish, such Act may be adopted by a parish meeting, held for that part (Sec. 7 (4) of the Local Government Act, 1894).

Where the parish council or a parish meeting has decided not to adopt the provisions of the Act, the proposal cannot again be renewed for the space of a year from such decision (Sec. 16 of the Lighting and Watching Act, 1833).

589. **BUILDING BYE-LAWS—Effect of Formation of New Urban District Council on Bye-Laws.**—I should be much obliged if through the *Municipal Journal* you would give your opinion on the following question, viz.: In April, 1903, a parish was created an urban district, and it was at the same time provided that the building bye-laws of the rural district council, which till then had jurisdiction over the parish, should remain in force in the urban district for twelve months. The new urban council has submitted building bye-laws to the Local Government Board, but these bye-laws have not yet been approved by the Board. Which building bye-laws are in force—if none, what law applies?—"WOT."

Between the termination of the period of 12 months during which the building bye-laws of the R.D.C. applied to the parish, and the date of formal sanction by the Local Government Board to the new bye-laws submitted by the new U.D.C., no building bye-laws are in force in the parish and urban district. It will, therefore, be open to any person building to erect such buildings, and in such a manner as to structure of walls, foundations, roofs, chimneys, the space to be left around, and the various other details, which may be regulated by bye-laws, as may seem best to the builder or person ordering the erection. Provided always that buildings are not erected in such a way as to create a nuisance, or so as to interfere with a neighbour's ancient lights, or in any other way infringe the general law bearing on the matter.

590.—**BURGESSES AND PAROCHIAL ELECTORS—Qualification.**—Will you be good enough to inform me through your columns as to the persons entitled to be enrolled as (a) burgesses, (b) parochial electors, (c) parliamentary electors, in a county borough.—"H. R."

The qualifications for enrolment on the burgess list are set out in Sec. 9 of the Municipal Corporations Act, 1882, and include the following:—

1. A person to be entitled to enrolment must be of full age.
2. On the 15th July in any year he must, during the preceding twelve months, have been in occupation, joint or several, of a house, warehouse, shop, building, &c., in the borough.
3. He must also, during the whole of these twelve months, have resided in the borough or within seven miles thereof.
4. He must be rated to the Poor Rates in respect of the qualifying property during those twelve months.
5. He must have paid, by the 20th July, all poor rates, including borough rates, due up to the 5th of January preceding.
6. He must not be an alien.
7. Nor have received poor relief within the twelve months mentioned.

The above are known as the "old burgess qualification." An alternative qualification, called "the ten pounds occupation burgess qualification," has been introduced by Sec. 3 of the County Electors Act, 1888. Under that provision, every person who is entitled to be registered as a voter in respect of a £10 occupation qualification within the meaning of the Registration Act, 1885, shall be entitled to be registered as a county elector, and to be enrolled as a burgess in respect of such qualification.

The expression, "parochial elector," when used in reference to a parish in an urban district (including a county borough), means any person who would be a parochial elector of the parish if it were a rural parish.

The parochial electors of a rural parish are the persons registered in such portion either of the local government register of electors (i.e., the burgess roll in boroughs) or of the parliamentary register of electors as relates to the parish. The parliamentary register consists of those who are qualified either as ownership electors or as occupation electors. The local government register consists of those who are qualified as occupiers only, and will include women, who would not, of course, be included in the parliamentary register. (See Secs. 2, 44, and 75 of the Local Government Act, 1894.) We cannot set out in our limited space the qualifications required for the parliamentary franchise. They include, in the case of boroughs, three main classes—the household qualification, the £10 occupation qualification, and the lodger qualification.

591.—**MUNICIPAL BANKING—Powers of Urban District Council.**—Can you supply me with the following information as to "Municipal Banking"? Have urban district councils the same powers as town councils to accept small sums as deposit loans on the security of the rates, without it entailing any cost such as stamp duty, but by merely giving an official receipt; and, if so, under what Act, if any, have they such power? Do you know of any U.D. councils which have started "Municipal Banking"?—"A MEMBER OF A U.D.C."

Urban district councils are not, so far as we are aware, empowered to accept small sums as deposit loans without paying the usual stamp duty charges. Stamp duty may be payable in two connections here. It may be paid on the receipt given to a depositor as an acknowledgement of the sum deposited. (The exception to the rule requiring payment of stamp duty in these cases would be where a banker gives receipts for moneys deposited and to be accounted for to the depositor.) Stamp duty would also be payable ordinarily on the debentures or mortgage deeds charging loan moneys on the rates or property of council, where such a charge is intended to be effected. In neither case is there power in a local authority to exempt documents connected with the raising of a loan charged on the rates with stamp duty. Sec. 233 of the Public Health Act, 1875, which regulates the general borrowing powers of local authorities under the Public Health Acts, contemplates the raising of loans by such authorities (with the sanction of the Local Government Board) for definite terms of years "on the credit of any fund or all or any rates or rate out of which they are authorised to defray expenses incurred by them in the execution of this Act, and, for the purpose of securing the repayment of any sums so borrowed, with interest thereon, they may mortgage to the persons by, or on behalf of, whom such sums are advanced, any such fund or rates or rate." It is, therefore, doubtful whether money can be borrowed by an urban district council under these Acts, except on mortgage of the rates or other public fund, and for the period prescribed by the sanctioning authority.

A MUNICIPAL CEMETERY FOR YORK.

THE York Cemetery Committee reports that it has formed the opinion that the provision of a new cemetery for the south side of the city under corporate control is desirable. There is a large and increasing population on that side of the city, now estimated to exceed 27,000, and the distance from the present public cemetery is considerable. With regard to cost, the committee considers that to provide a suitable cemetery to meet all reasonable requirements would entail a capital expenditure of about £18,000. The annual payments for interest and sinking fund and for maintenance and management would undoubtedly exceed the estimated revenue for some years, and necessitate a rate, perhaps, to the extent of 1d. in the £. The committee, on Monday next, will submit to the Council a resolution that it is expedient to provide a cemetery on the south side of the city under their own control.

WE understand that Mr. William Gibson Lewis, barrister-at-law (Gray's Inn), assistant secretary of the Central Committee of Poor Law conferences, has relinquished the idea of becoming a candidate for the secretaryship of the Poor Law Unions' Association.

POOR LAW OUTLOOK.

A Year's Retrospect of Work and Policy. The "Times" Lugubrious Tale of Our too Comfortable Workhouses and the Peoples' Changed Attitude Towards the "House." Is this Evolution to be Bemoaned? The Real Danger of Indiscriminate Out-door Relief. Striking Comparisons among London Unions. The Treatment of the Children and the New Scheme of Emigration.

WHAT is the trend of our English policy of poor relief? Does it make for independence, thrift, and self-help? To the extent of a page the *Times* thunders a "No." In its annual retrospect of the Poor Law outlook the organ waxes more indignant than ever against the methods of English Guardians. It has fierce anathema for both indoor and out-door relief as it is to-day being administered in England. "Great dangers ahead," it cries, pointing to the facts that there are 13,350 more paupers than there were last Christmas; a larger volume of pauperism than there has been since 1870; that the ratio of paupers to population has not been so high since 1873; and that there are now for every 1,000 of the population in London 28 persons in receipt of relief.

The Trend of English Poor Law.

MUCH of this "dismal story"—to use its own phraseology—this dark pessimism, this tendency to have shaken "faith in the good effects of our modern civilisation," may be a little over-coloured, but it constitutes a warning Poor Law guardians cannot take too seriously to heart. But the attack on the comforts of the modern workhouse is to a great extent unjustifiable. Many of our workhouses are undoubtedly crowded, and some of them are accommodating even more than their certified number. To-day there are 77,000 indoor paupers, as against 73,572 last Christmas, and 67,193 ten years ago. Nor can it be denied that—

Modern Workhouse "Too Comfortable."

> The material conditions under which the aged inmates now live are very appreciably better in all respects than any they could hope to enjoy outside. Nobody desires to prevent the aged destitute poor from enjoying all the comfort they can get. But if the public agree that life in the workhouse should be made attractive to the aged poor, they must be prepared to pay for it.

All this cannot be disputed, but is it a cause for sorrow? None of us desire a return to the type of workhouse described in "Oliver Twist."

ONE of the most remarkable features of the modern Poor Law movement, the article proceeds to show, is the changed attitude of the poor towards the workhouse:—

People's Changed Attitude.

> The suggestion that a generous measure of out-door relief will induce people to keep outside is now of no avail, for where this policy is adopted, there the workhouses are generally the most crowded. Never in the history of the Poor Law have these institutions been favoured so much by the poorer classes as now, when as many as 77,021 are enjoying the hospitality of the ratepayers as inmates. One of the fundamental principles of the Poor Law is that in the administration of relief the good of the community must be considered as of greater importance than that of the individual: and that the condition of those who become dependent should not be made better than that of the independent labourer.

This "fundamental principle" of the Poor Law is repeated several times in the article. But the writer apparently does not reflect upon its real meaning. It cannot be denied, on a little reflection, that the independent labourer, especially the unskilled labourer, to-day often lives under conditions which make for physical inefficiency. Until we have abolished death-lurking slums, and opened avenues whereby every labourer can earn a living wage, it is idle to talk of our disregard of "natural laws."

BUT the whole case against our present comfortable workhouses is given away, in our opinion, by the admission that "the main body of the numbers seeking indoor relief is made up of old people." Why should the old people be sacrificed to this "principle." Out-relief for the aged who need it is a right, and not a privilege. Apart altogether from the unfortunate, it can be proved arithmetically that many of the labouring classes cannot save, even by the greatest economy throughout life, a sum of money that will bring them 5s. a week at the age of 60. Why should a man spend his days in labour, and then be compelled at a time when he most needs tender treatment to fare as the most ill-paid? Even granting that our social system is sound, and that each gets his deserts, this philosophy of the *Times* savours rather of the middle ages than of the twentieth century. Last year we felt compelled to criticise the writer on this point, and we do so again in the strongest manner, despite his remark this year that "these views have been criticised in some quarters, and especially by certain Poor Law journals which support the interests of union officials."

Hard on the Old Folks.

MUCH sounder are the opinions expressed in regard to the policy of out-door relief. We must never grow tired of urging the necessity in dealing with applicants for relief outside the workhouse that all possible information relating to cases should be obtained and laid before the guardians. Why we have strenuously urged the claims of the case-paper system is because it makes for clearer and quicker investigation. We have several times warned our readers of the danger just now of legislating in panic, and this is how the *Times* regards the danger:—

Words in Season on Out-Relief.

> Then again the severity of the distress has been exaggerated. This has led to undue alarm on the part of pessimistic guardians and other persons in some unions, with the result that an enormous amount of *out-door relief* has been given out of proportion to the apparent necessities of the case. Nobody doubts that there is a considerable increase in the number of the unemployed, particularly in the north, south, and east of London: but it is not, we are assured, an increase that would justify any one in believing that a great crisis of a supreme character has overtaken us. Nevertheless, Poor Law relief has been granted in some quarters to an extent which could be defended only in such circumstances.

This is adding fuel to the fire.

AND the *Times* makes out a very good case that shows that policy more than poverty is responsible for the increase of pauperism. In Whitechapel, which has a population of 78,768, there is no indication from the in-door and out-door relief lists of any prevailing distress beyond that which is normal at this time of the year; the workhouse is 150 below the certified number; there are very few able-bodied men chargeable who are capable of doing a full day's work, and out-door relief is given to only six adults and 31 children. In Bethnal Green, a very poor union, with a population of 129,680, there is an increase of only three able-bodied men and three able-bodied women chargeable at the workhouse over the number of this class for last year. At Woolwich, where there is a population of 131,086, a large part of which is poor, notwithstanding the fact that the dock-yard supplies a great many with labour, the year has been the lightest in Poor Law matters for the last 20 years; there was not in the first week of the month a single able-bodied male on the books, and although there was a greater preponderance of able-bodied in the workhouse than was the case some years ago, it very largely consisted of the class who would not work unless they were compelled to do so. It is certainly a very hopeful feature that increased pauperism is not widespread throughout the metropolis.

What Comparison Teaches.

THE union which comes in for the greatest castigation, on the other hand, is Poplar, where "large masses of the population are becoming familiarised with Poor Law relief. The situation in the district is very serious, more on this account, perhaps, than because there is any greater distress in the union than in others adjacent to it. With its 11,686 paupers, of whom 7,916 are receiving out-door relief, it is the most highly-pauperised union in London. And what is the reason? A comparison may supply an answer." Then follow figures comparing Poplar with other riverside unions, to its detriment. Poplar "dispenses a lavish system of out-door relief, and it would appear that the first offer made to a person asking for assistance is Poor Law relief." As a result of this policy it is shown that the union is overburdened with Poor Law establishments. Certainly the Poor Law is nowhere kinder to the poor than in Poplar.

Poplar's Unenvied Notoriety.

IN the course of this article in the *Times* the President of the Local Government Board comes in for some twitting. Alluding to the vanishing fear of the workhouse popularly displayed, the article proceeds:—

Mr. Long Fails to Disapprove.

> Mr. Long does not regard this change with disapproval or regret. As a matter of fact, the guardians of London have, with his sanction, helped to remove that "repugnance to the institution of the workhouse," and to destroy that "honourable feeling of independence" which once existed, by making the workhouses really attractive.

This is a great deal for the Government organ to say, and it shows how deeply it regrets that the modern workhouse is so comfortable.

SOME very sound advice is given to guardians in regard to the treatment of the children, advice which we have ventured to offer on more than one occasion. Notwithstanding the strength of opinion against the continued association of children with the workhouse establishment, and against the large district school system, it is unfortunately a fact that there has not been during the past year any further movement in the desired direction. Last year, 1903 4, there were still 3,219 children in the London workhouses and infirmaries, only 62 fewer than in 1902 3, certified under the Poor Law (Certified Schools) Act, 1862, and over 400 Poor Law children in hospitals. district sick asylums, institutions for the blind, deaf and dumb, &c. An effort should be made to remove the children who can be taken away into separate institutions. Much good work, however, has been achieved by transferring rather more than four-fifths of the 20,000 children chargeable to London unions to institutions other than workhouses and infirmaries. In various ways steps are being taken to rescue children from harmful conditions, and to place them amidst surroundings which will give them a good chance in life. There is here no dark pessimism, such as exhibited in the *Times* a few weeks ago, as to the failure of the various systems of treating State children in England.

Treatment of the Children.

EMIGRATION for State children, alluded to at length in our last issue, is also discussed. Mrs. Close's scheme for emigrating children to Poor Law farms in Canada is thus referred to:—

Emigration.

> The scheme has been so recently discussed in the *Times* that it is not necessary to deal with it here. But it may be said that there is a strong body of opinion against allowing the Poor Law "stigma" to pursue the child to a country where he is to make an effort to achieve independence. It is pointed out that there is no evidence that the voluntary emigration societies have not been successful in placing the children in situations in Canada and looking after their welfare; and a third objection is that the scheme involves the establishment of further Poor Law institutions at a considerable cost.

The main expectation, however, from this proposed new system is that it may stimulate emigration for suitable children, than which, under proper supervision and inspection, there is no better method of dealing with them.

Official Advertisements.

COUNTY BOROUGH OF BURNLEY.

TOWN CLERKSHIP.

THE Town Council of Burnley invite Applications from Solicitors for the office of TOWN CLERK.

The salary will be £700 per annum, to be increased, if the services rendered be satisfactory, to £750 at the end of two years, and afterwards by yearly increments of £50 to £900 per annum. The Corporation provides offices, clerks, stationery, and other requisites.

The gentleman appointed will be required to devote his whole time to the duties of the office, and must not engage in private practice; he may, however, hold the office of Clerk to the Burnley Joint Hospital Board, if appointed thereto by that authority.

Canvassing is strictly prohibited.

Particulars of the conditions of appointment, and forms of application, may be obtained from the undersigned.

Last day for sending in applications—Saturday, 7th January, 1905.

A. STEELE SHELDON,
Town Clerk.

Town Hall, Burnley,
20th December, 1904.

INSTITUTE of MUNICIPAL TREASURERS and Accountants' Examinations, June, 1905. Gentlemen coached in class or by correspondence in Law Section. For terms address "Coach," MUNICIPAL JOURNAL Offices, 12, Salisbury Square, Fleet Street, E.C.

JUNIOR CLERK, 20, seeks Re-engagement. One year's experience. Good references. Write "Dinn," Summerhill, Margate Road, Ramsgate.

WANTED, for a period of two months CLERK to post Gas and Water Consumers' Ledger, and assist in Preparation of Quarterly Accounts. Write, on or before 10th January, stating age, experience, and salary required, to "Clerk," Town Hall, Cleckheaton, Yorkshire.

CITY OF LONDON COLLEGE,
ACTING IN CONJUNCTION WITH
THE LONDON CHAMBER OF COMMERCE,
WHITE STREET AND ROPEMAKER STREET, MOORFIELDS, E.C.
(Near Moorgate Street and Liverpool Street Stations.)

Principal—
SIDNEY HUMPHRIES, B.A., LL.B. (Cantab).

LENT TERM commences January 9th.

DAY COMMERCIAL SCHOOL, one year's course fits students (both sexes) to take positions in Commercial Life.

The course includes Typewriting, Shorthand, Bookkeeping, Office Routine, Geography, French, German, and Spanish.

Perfectly equipped Chemical, Biological, Physiological, and Physical Laboratories.

Students are prepared for B.A., B.Sc., Pharmaceutical, Primary, F.R.C.S., and Conjoint Board Exams., Civil Service, the Institutes of Accountants, Actuaries, Bankers, Surveyors, and other Examinations, for all of which special Courses are arranged.

Drawing, Painting, Design, Embroidery and Wood Carving.

Special Saturday Courses preparing for the Matric. and Inter. and Final B.A. and B.Sc.

Lectures and Entertainments are given every Thursday Evening.

Prospectuses and all other information gratis on application.

DAVID SAVAGE,
Secretary.

EATON & KNAPP,
BOILER SETTERS & FURNACE BUILDERS,
Repairs in Boiler Brickwork & Dust Destructors of all kinds.
ESTIMATES FREE.
23, CLACTON ROAD, WALTHAMSTOW.

THE BEST JUDGES OF CIGARS
Now obtain their supplies at
BENSON'S, 61, St. Paul's Churchyard, London.
Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

SUN FIRE OFFICE
FOUNDED 1710

SUN FIRE OFFICE

HEAD OFFICE:
68, Threadneedle Street, London, E.C.

Branch Offices in London:
60, Charing Cross, S.W.
382, Oxford Street, W.
40, Chancery Lane, W.C.
4, Mincing Lane, E.C.

BIRMINGHAM .....10, BENNET'S HILL.
BRISTOL..... CORN STREET.
LEEDS.....SUN BUILDINGS, 15, PARK ROW.
LIVERPOOL.....SUN BUILDINGS, 6, CHAPEL-ST.
MANCHESTER..... 71, KING STREET.
NEWCASTLE..... 19, COLLINGWOOD STREET.
EDINBURGH.....40, PRINCES STREET.
GLASGOW..... 42, RENFIELD STREET.
DUBLIN .....10, TRINITY STREET.

Funds in Hand, £2,535,800.

LIGHTNING CONDUCTORS.
J. LEWIS,
5 and 6 Great Winchester Street, London, E.C.
TELEPHONE No. 3053 CENTRAL.

SULPHUME
(SULPHUR DIOXIDE)
FOR
ROOM DISINFECTION
As adopted by the WAR OFFICE, and numerous HOSPITALS, CORPORATIONS, and other SANITARY AUTHORITIES.

MAKERS AND PATENTEES,
A. BOAKE, ROBERTS & CO., Ltd.,
STRATFORD, LONDON, *ENGLAND*.

WARD & MACONIE,
15, HANOVER STREET, LONDON, W.

Municipal Robe Makers and Court Tailors.

PRICE LIST ON APPLICATION.

DELICIOUS COFFEE.
RED
WHITE
& BLUE
For Breakfast & after Dinner.
In making, use LESS QUANTITY, it being so much stronger than ORDINARY COFFEE.

EYRE & SPOTTISWOODE.

SECONDARY EDUCATION IN LIVERPOOL.—Report on Secondary Education, including the Training of Teachers for Public Elementary Schools. By MICHAEL E. SADLER, M.A. Buckram, 2s. 6d.

SECONDARY AND HIGHER EDUCATION. Report on Secondary and Higher Education in Sheffield. By MICHAEL E. SADLER. Paper, 1s.

JAPANESE COLOUR PRINTS. By EDWARD F. STRANGE. With numerous Illustrations. 1s. 6d.

FISCAL POLICY.—A Second Series of Memoranda, Statistical Tables and Charts, with reference to various matters bearing on British and Foreign Trade and Industrial Conditions, has been prepared in the Board of Trade in Continuation and Extension of the Volume published in September, 1903. Price 3s. 6d., by post 4s.

PUBLIC GENERAL ACTS, 1904 (Cheap Edition). Published by authority. Red cloth, 3s. This volume contains all the Public Acts passed during the Session, with Index to same: also Tables showing the effect of the Legislation, together with complete and Classified Lists of the Titles of all the Local and Private Acts passed during the Session.

THE HOUSING ACTS. By A. P. POLEY, Barrister-at-Law. Fcap. 8vo. 3s. 6d.
"Wherever we have tested it, it seems accurate, terse, and to the point, and there is a good index."—*Pall Mall Gazette.*

A GUIDE TO THE PUBLIC HEALTH ACTS, 1875 and 1890, AND THE LOCAL GOVERNMENT ACTS, 1888 and 1894, with the Incorporated Acts relating to Urban and Rural District Councils, together with the Private Street Works Act, 1892. By L. GAUCHES, LL.M., B.A., Barrister, Counsel to the Associations of District Councils (3s. 6d.)

EAST HARDING STREET, LONDON, E.C.

An admirable Food of the
EPPS'S
Finest quality and flavour.
COCOA
Nutritious and Economical.

MUNICIPAL JOURNAL
FRIDAY, DEC. 30, 1904.

NOTES AND COMMENTS.

1904.

MUNICIPALLY, there is every reason to feel satisfied with the progress made during the year just closing. For all practical purposes, the agitation which was to result in the imposition of "limits" upon civic enterprise has collapsed. The Government did not re-appoint the Joint Select Committee, whose preliminary recommendations have not been acted upon, but have incurred the unexpected but none the less indignant opposition of the Local Government Board. It is not now Parliament, but the municipalities themselves, that demand the application of an audit system which shall enable the presentation to the public of accounts transparently straightforward and free from suspicion. And it is not the municipalities, but Parliament itself, which is responsible for the delay in applying that system. Thus the only weapon of attack with which the company interests behind the anti-municipal trading movement were furnished by the Joint Select Committee has been rendered useless, first by the unanimity of the municipalities in favour of a drastic change, and secondly by the inactivity of the Government itself. The Industrial Freedom League, recognising the futility of attacking the municipalities for the absence of reforms which the latter are willing to accept, but which Parliament, as represented by its official departments, is unwilling to concede, has confined its onslaughts to generalities, and the amount of "free

THE MUNICIPAL JOURNAL

ESTABLISHED AS

LONDON.

A Weekly Newspaper.

VOLUME XIII.

1904.

LONDON: EDWARD LLOYD, LTD., 12, SALISBURY SQUARE, FLEET STREET, E.C.

INDEX TO VOLUME XIII.

A

Abattoirs—see Municipal Slaughterhouses
Absorption of Suburbs—see Cities and Suburbs
Acton and Municipal Creches.. 252
Adelaide's Municipal Progress. 206
Adulteration: Amendments in Law Needed 288
Advt. Hoardings, Municipal Rating of 286, 372
Advertising, Municipal, in America 1008
Public: Need for Municipal Restrictions 257
Towns 72
Air, Fresh, for London... ... 379
Allison, F. P., L.C.C. Deputy Chairman (illus.) 229
Amalgamation of Parishes ... 651
America, Civic 463
Municipal Newspapers ... 565
Trust v. City in 564
Analysts' Salaries 309
Answers to Correspondents—see Notes and Answers
Association of Municipal Corporations 365, 391, 393
(Illus.) 846, 851
Municipal Engineers 496
Aston and B.E.T. Co. ... 11, 472, 637
Audit—see Municipal Audit and under towns
Auditors' Reports ... 6, 51, 152, 166 452, 683, 688, 765, 856
Australia and Land Values ... 766
Municipal Outlook ... 298
Avebury, Lord, and Municipal Indebtedness... 591

B

Back to the Land... 912
Bakehouses, Underground: Battersea's Activity (illus.) 327
Baker, J. Allen, on New York Rapid Transit 1037
Bankers and Muuicipal Banks 992
Barbers, Rules for London ... 944
Barnsley Educational Comedy 551
Water Profits 404
Water Supply 889
Barrow Gas Profits ... 487, 723
Water Profits 487
Baths—see under towns
Russian and Turkish, Camberwell (illus.) 821
Bath Town Clerk (illus.) ... 986
Battersea Baths (illus.) ... 461
Surveyor 106
and Underground Bakehouses (illus.) 327
Bearwood and B.E.T. Co. ... 537
Bedding Material, Insanitary 691, 784, 926
Bellamy, C. R., and Light Railways Act (illus.) 791, 793
Benn, J. Williams, L.C.C. Chairman (illus.) 229
Berlin: Government by Experts 912
"Bermondsey Clause" 466, 531
Beverley Gas Profits 667
Bewdley and B.E.T. Co. ... 691
Bexhill Poll 92, 106, 139
Town Clerk 743
Birkdale Improvement Bill ... 411
Birkenhead Ferry 304
Tramways Managership ... 79
Birmingham and B.E.T. Co., 59, 191, 212, 252, 312, 377, 472
Corporation Bill 872
Finance 424
Gas 426
Housing 257, 285, 427
and Public House (25 Nov.) 952
and Street Trading (25 Nov.) 952
Swimming without Water ... 432
University 675
Water Supply, 132, 346, 426, 573, 581 (illus.), 626, 785
Bishops Stortford Gas: Purchase Defeated 776
Sir G. Livesey's Report, 692, 723, 752
Blackburn Gas Profits ...346, 523
Municipal Buildings Scheme 786
Cotton Mills Suggested ... 768
Town Clerk 77
Blackpool a County Borough 187, 344, 746, 816
and Fylde Light Railway ... 617
Rates 463
Bolton Auditor's Report ... 765
Educational Progress (illus.) 705
Libraries Jubilee 423
Omnibuses 698
Sewage Scheme: Traders' Opposition 611
Book Reviews:—
"Aids to Study of 'Sanitary Law,'" 1029; "Alcohol: Its Place and Power in Legislation," 296; "Architect's Law Reports," 1029; "Borough Funds Acts Handbook," 37; "Burdett's Hospitals and Charities, 1904," 277; "Bygone London Life," 37; "Code for Public Elementary Schools," 658; "Electricity Statistics" (*Electrician* Supplements), 116; "Encyclopædia of Accounting," 209, 237. 669, 1051; "Evolution of Local and Imperial Government," 296; "Gas World Analysis of Accounts," 209; "Gas World Year Book," 37; "History of English Poor Law," 1009; "How to Deal with Your Taxes," 336; "Humane Slaughtering," 1009; "Law of Education," 116; "Law and Practice of Rating," 544; "Law of Public Education," 669; "Light Railways," 96; "Local Government Law and Legislation, 1903," 277; "London Education," 209; "London Manual," 38; "London in the Time of the Tudors," 809; "Manual of Electricity Undertakings," 229; "Markets, Fairs, and Slaughterhouses," 778; "Methods of Social Advance," 297; "Milk Supply of Large Towns," 779; "Rating, Forms and Grounds of Notices, &c.," 116; "Tenement House Problem in New York," 276; "Trade Unionism and British Industry," 336.
Booth, Charles, sued for Libel 205
Booth, General, and Vagrant Problem 184
Bootle: Costs of Extension Inquiry 36
Borough Councils Association, Metropolitan 338
Boston Town Hall (illus.) ... 481
Bournemouth and B.E.T. Co.... 532
Sea Defence Scheme 43
Telephone Difficulty 652
Tramways Surcharge 837
Bradford Auditors' Reports ... 152
Baths 618
Cartwright Memorial Hall (illus.) 323
and Elberfeld System ...771, 773
Exhibition ... ...361 (illus.) 804
Gas Profits 465
Housing: Builders' Challenge Accepted 806
Market Extension 1024
Morality Crusade 452
Refuse Destructor 547
School Baths 1004
Schools as Clubs 704, 745
Stationery Department ... 345
and Swimming 376
Town Hall 269
Waterworks 562
Branksome Library 739
Brentford and London United Tramways Company ... 612
Street Widening Difficulties 612
Bricks from Gas Residuals ... 84
Brighouse Auditor's Report .. 688
Borrowing Powers 26
Gas Profits 404
Water Profits 404
Brighton Aquarium 652
and Hove Electricity Dispute 675
Municipal Jubilee 309
Telephones (illus.) 223
Town Clerk (illus.) 544
Bristol Children's Homes ...1021
Electricity Works Fire ... 536
Extension of Boundaries ... 77
B.E.T. Co.: Activities in Various Towns—see under towns
Appeals for Money 152
Atherley Jones and 591, 611, 631, 752
and Expenses 191
How it Works 691
How It Evades Obligations... 392
in Black Country 578
Consett Guardian's Defence... 631
Investments "Not Good Enough"... 132
Methods at Birmingham ... 212
Modest Directors 231
New Press Agency 532
Provision for Depreciation ... 445
Report 531, 563, 572
Shares 251, 272, 562, 572
British Institute of Social Service—see Social Service
Bromley: W. Ivey and Electric Tramways 231
Burnley Grammar School: Proposed Municipalisation ... 627
Town Clerk 1006
Burns, John, and Thames Steamboat Scheme 467
Burial Boards and Burial Grounds—see uuder Towns
Bury Gas Profits 422, 465
'Buses—see Omnibuses

C

Cabmen's Shelters 4
Camberwell Baths (illus.) ... 821
Winter Cricket... 924
Canals, Municipalising the (2 Dec.) 924
Cape Town Loan 851
Progress (illus.) 887
Carlisle Educating Outside Children 791
Extension of Boundaries ... 344
Gas Profits 465
Water Profits 465
Carnarvon Baths... 4
Cartwright Memorial Hall—see Bradford.
Cemeteries—see under Towns.
Chairman of L.C.C., J. W. Benn (illus.) 229
Chamberlain, Austen, on Local Indebtedness 331
Chelsea Housing 907
Cheltenham and Audit 732
Auditor's Unusual Recommendation 452
Chester Housing 146
Town Clerk 404
Chicago and Direct Labour ... 298
Children Under Poor Law ... 33, 36, 53, 73, 173, 187 (illus.), 193, 233, 253, 273, 293, 313, 433, 449, 469, 473, 496, 553, 563, 573, 606, 633, 653, 694, 713, 788, 813, 853, 854, 873, 894, 993, 1021, 1033
Chiswick Incorporation (illus.).1001
Cities and Suburbs: Extension of Boundaries ... 25, 29, 46, 52, 77, 87, 123, 128, 266, 285, 311, 326, 344, 484, 667, 683, 767, 783, 791, 804, 884, 909, 1003, 1023
City Companies, London ... 892
Clinker Bricks, Fulham (illus.) 987
Clyde Trust 1032
Colwyn Bay Gas Profits ... 422
Municipal Trading Profits ... 903
Companies: Shall they Vote? 651, 863, 943 (Nov. 25), 991
Concerts—see Municipal Concerts.
Consumption: Professor Kenwood at Sanitary Congress ... 615
Cornwall, E. A., L.C.C. Vice-chairman (illus.) 229
County Borough, Advantages of Becoming a 746
County Councils Association, 406; Legislative Proposals, 171; a Year's Work 684
County Councils, Status of ... 252
Coventry Gas Profits, 465; Markets, 523; Water 523
Crewe Council and Weather Vane 802
Cricket, Winter 924

D

Dartmouth Town Clerk (illus.).1026
Debts and Rates—see Municipal Debts and Rates; and under towns.
Depreciation (25 Nov.) 944; see also under Tramways, Electric Lighting, &c.
Law and Practice 663
and Sinking Funds 747
Deptford: Municipal Debentures 926
Deputation Expenses 644
Derby Baths 376
Water Scheme 649
Deterioration Committee's Report 647
Devonport Water Purchase ... 905
Dewsbury a County Borough 683, 758
Extension of Boundaries ... 683
Dick, Kerr and Co.: A Year's Work 789
Diphtheria in Schools 635
Disinfector, "Equifax" Steam 459
Doctors, Municipal 446
Dodd, J. Theodore, and Out-Relief—see out-relief
Doncaster Corporation Bill ... 512
Racecourse 728
Dover: Election Petition against Mayor 76
Drink Traffic: How Controlled in S. Australia 631
Dublin Mayor's Salary 211
Dundee Gasworks 1026
Durham County Council's Electricity Scheme 627
and Non-provided Schools (2nd December) 958
Dust Binder, Hope's Pyne-oiline 459
Dust Destructors and Electric Lighting Stations 1034

E

Ealing: Bachelors' Homes Proposed 876
Eastbourne Library (illus.) ... 646
Omnibuses 366
Technical Institute (illus.) ... 646
East Ham Incorporation, 441 (illus.) 746
East London Improvement Scheme—see London
Eccles Bierlow Union Cottage Homes (illus.) 853
Town Clerk (illus.) 743
Ecclesiastical Commissioners' Housing Scheme (illus.) ... 203
Edinburgh and Leith Gas Stoves 931
Edmonton and B.E.T. Co., 472, 986
Education in various districts—see Educational Notes, and under Towns, &c.

Changes under Education Acts 934
Country Children in Town Schools... 791
Committees Association ... 306
"Dangerous Form of Municipal Trading" 852,872
Description of Work taken over by the L.C.C. (illus.)... 83
Local Authorities and (general article)... 665
L.C.C. Scheme, 91, 96, Approved 232
London, Dr. Macnamara and 12
Municipal Control of: Sir A. Rollit's Views. 724
First Year's Work 267
PhysicallyDefective Children 431
and Public Purse 243
Religion and, London... ... 11
Schoolmasters as Councillors 4
Scotch Scheme... 271
Welsh Revolt 352
Educational Notes—26, 66, 97, 106, 126, 146, 166, 186, 206, 226, 246, 286, 344, 364, 383, 404, 424, 444, 464, 484, 506, 554, 576, 594, 604, 624, 649, 686, 724, 744, 764, 784, 806, 824, 844, 866, 884, 904, 924, 944 (25 Nov.), 984, 1004, 1024, 1044
Elberfeld Out-relief System in England 771, 773
Election Petition, Dover ... 76
Elective Auditors' Reports—see auditors' reports
Electrical "Fields" Untouched, London 435
Electricity: "Boiler House Economics" 536
Charges: Undue Preference Clause 555
Cheap: Public and Private Charges Compared 435
Companies' Monopoly—see Electricity in Bulk, and Supply of Electricity Bill
Depreciation... ... 295, 925, 931
Future of Bulk Supply ... 836
Electricity and Gas Compared: Glasgow, 236; Westminster, 236
v. Gas, 179, 575; Manchester Experiment, 562
in Bulk: Power Companies' Menace, 192, 207, 292, 304, 322, 345, 365, 384, 392, 432, 452, 483, 492, 535, 545, 551, 571, 587, 591, 712, 1011
Laying of Mains 356
Load-factor and cost 15
Municipal: Councillor Blakeway's Paper ... 525 (illus.), 555
Outlay on Plant, &c. 375
Supply: Board of Trade New Regulations 816
Supply Bill—see Supply of Electricity Bill
Supply Limited under Newcastle Bill 272

ELECTRIC LIGHTING AND POWER.

Aberdeen, 797; Acton, 146; Aldershot, 955 (25 Nov.); Ayr, 745; Barking, 135, 422, 955 (25 Nov.); Barnes, 215; Barnsley, 404; Bath, 456; Battersea, 875; Bedford, 235; Belfast, 735; Berlin, 935; Bermondsey, 875; Bethnal Green, 949 (2 Dec.); Birkenhead, 386, 455; Birmingham, 426, 456, 779; Blackheath and Greenwich Co. 355; Blackpool. 575; Bolton, 455; Boston, 1011; Bridlington, 76; Brighouse, 404; Brighton, 444, 487, 514; Bristol, 15, 35, 514; Brompton and Kensington Company, 315; Burnley, 528; Bury, 422, 465; Bury St. Edmunds, 95; Canterbury, 495; Cape Town, 887: Cardiff, 16; Charing Cross and Strand Company, 355; Chelsea Company, 395; Cheltenham, 775, 916, 925, 931; Chesterfield, 215; City of London Company, 335; Colwyn Bay, 422,903; Conway,663; Coventry, 523; Crewe, 1035; Croydon, 715; Derby, 1050; Dover, 346; Dundee, 195, 797; Durham County, 627, 785; Ealing, 915; Eastbourne, 955 (2 Dec.); East Ham, 363, 835; Edinburgh, 1755; Edmonton, 986; Epsom, 135; Exeter, 896,1050; Fareham, 235; Farnworth, 179, 355; Folkestone, 335; Folkestone Company, 735; Fulham, 915; Glasgow, 627, 662, 755; Gorton, 156; Govan, 75, 755; Greenock, 155; Grimsby, 135; Hackney, 896; Halifax, 487, 835; Hammersmith, 328, 389, 579, 875; Hampstead, 1050; Hastings, 995; Heckmondwike, 434; Holyhead, 776; Huddersfield, 415; Hull, 444, 475; Ilford, 55, 523, 674; Ipswich, 935; Islington, 895; Keighley, 215; Kensington and Knightsbridge Company, 315; Kingston-on-Thames, 695; Lancaster,115; Leeds, 495; Leicester; Leigh, 422; Leith, 155, 755; Leyton, 564; Lichfield, 391; Liverpool, 315, 389; London, 935; London Supply Corporation, 355; Longton, 75; Louth, 423, 486; Ludlow, 1016; Maidstone, 742, 1015; Manchester, 4, 775; Marylebone, 16, 72, 136, 196, 255, 372, 409, 489, 509; Melbourne, 15; Metropolitan Company, 295, 335; Middlesbrough, 465, 935; Montrose, 776; Motherwell, 195; New Barnet, 1027; Norwich, 422; Nottingham, 389, 955 (25 Nov.); Notting Hill Company, 315; Oldham, 115, 655; Paisley, 195, 1035; Partick, 195; Plymouth, 444, 883; Poplar, 955 (2 Dec.); Portsmouth, 655; Pudsey, 746; Rathmines, 95; Rawtenstall, 611; Redditch, 180; Runcorn, 285: St. Anne's, 715; St. Helens, 815; St. Pancras, 696, 895; Salford, 815, 842, 931; Sheffield, 541; Shoreditch, 895: Shrewsbury, 155; Southampton, 995; South London Company, 375; Southport, 487, 855; South Shields, 523, 528; Southwark, 409, 875; Stepney, 28, 385, 415; Stirling, 195; Stockton, 95; Stoke-on-Trent, 883; Stratford-on-Avon, 1024; Sunderland, 444, 475, 495; Swansea, 465, 696; Taunton, 475; Tiverton, 711; Tottenham, 156, 165; Tunbridge Wells, 78, 292, 372, 379, 422, 451, 528, 931; Tynemouth, 235, 436; Wakefield, 487, 695; Wallasey, 179; Walthamstow, 782; West Bromwich, 1015; West Ham, 915; West Hartlepool, 1050; Westminster,236, 275; Whitby, 776; Willesden, 562; Wimbledon, 35, 855; Wolverhampton, 565, 797; Wood Green, 755; Worcester, 216, 255; Yarmouth, 55, 487, 674; York, 584, 855; Yorkshire, 943 (2 Dec.).
Electric Lighting: Boiler Accidents 215
Economy... 785
And Fire Outbreaks ... 35, 196
Legislation: Actions for Damages 466
Meters and Remuneration ... 216
Municipalities Criticised ... 471
Lighting and Power: Popular Ignorance 435
Rates 555
Reasons for Municipal Supply 231
Voltage Variations 515
Power: Municipal Charges, London 335
Trains ... ... 239 (illus.), 259
Tramways—see Tramways.
Employment Agencies: Where they are Regulated 567
Epileptics: Colony at Warford (illus.) 673
etc.: Royal Commission ... 711
Extension of Boundaries—see Cities and Suburbs, and under Towns.

F

Falkirk and Sunday Trams ... 498
Felixstowe Hotel Libelled ... 77
Fels, Joseph: Farm for Poplar Guardians (illus.) 313, 881
Filter, "Spongy Iron"... ... 456
Finance, Municipal—see Municipal Finance
Fire Dangers 28
Local Authorities and ... 124
Escape, Parry's 706
at Salford Electricity Station 76
Folkestone Council and Property Purchase 502
Officials' Club 1014
Free Libraries—see Libraries
Meals for Children. ...303, 429
Wiring at Finchley 276
Fulham: Bricks from Clinker (illus.) 987
Land Values 1050
Libraries... 929
New Park (illus.) 425

G

Garcke, Emile: His Company Interests... 151
Garden City Planned (illus.),341; Reception. 326
Gas Exhibition, International, 954 (2 Dec.), 1014
Municipal Better than Company 47, 723, 752
Municipal: Industrial Freedom League Finance 871
"Napthalene" Difficulty Solved 812
Orders 1904 745
Undertakings: Municipal, Successes 752
Germany: Dust Collection (illus.) 107
and England Compared (Municipal Undertakings).. 12
Municipal Enterprise... ... 147
Glasgow Audit 52, 67
Cemeteries 699
Cleansing Account 707
and Clyde Trust 1032
and Coalfields 251
Finances... 662
Gas Enterprise: New Works (illus.) 761
Gas Profits 723
Housing, 586; Commission, 571, 592, 609
and Land Values 712
Main Drainage Scheme ... 615
Market Tax 983, 1002
Quarries, &c. 682
Street Lighting 236
Telephones ... 31, 67, 192, 269
Town Clerk ... 77, 986, 1026
Tramways Manager (illus.) ... 886
Municipal Creches 704
Goldsmiths' Institute, 243 (illus.), 489
Gomme, G. L., on Municipal Service Career 245
Govan Town Clerk 384
Graham, Morton & Co. 238
Grantham, Sir W., and Building Bye-Laws ... (25 Nov.) 945
Great Yarmouth—see Yarmouth.
Greenwich "Palatial" Workhouse 53
Grocers Condemn Municipal Trading 552
Guernsey Telephones 205
Guildford Extension of Boundaries 344

H

Hackney: Poor Law Administration 1034
Haggerston Baths (illus.) ... 501
Halifax Gas Profits 487
Markets 487
Waterworks 764
Hammersmith Carnegie Library (illus.) 385
Hampshire aad Manifold Light Railway 175
Hampstead Heath Extension... 358
Hanley Sewage Experiments... 549
Handsworthand B.E.T. Co. 752, 757
and House Numbering ... 732
Harris, F. E., Accountant to London Water Board... ... 89
Harrogate Municipal Trading Criticised 772
Hastings and Amalgamation ... 651
Financial Position 852
and Mixed Bathing 784
Health, Public: Amendments in Law Needed... 287
Hereford Town Hall (illus.) ... 481
Hidden Treasure—see Treasure-seeking Nuisance
Highways Protection League... 704
Holborn Town Hall 9, 36
Homeless London 191
Horniman Museum 489
Hornsey Municipal Schools (illus.) 347
Hospitals and Fire Danger ... 595
Housing, 172, 192, 203, 409, 572, 727, 749, 769, 786—see also under towns
Act, 1903: Financial Effects 285
Agitation for Relaxed Bye-laws 892
Bishop Auckland Conference (25 Nov.) 945
British Association Discussion 692, 699
Conference, London 1019
Loans, 131, 492, 776; Treasury and 632
Manchester Citizens' Association Suggestions... ... 364
Model Dwellings at Health Exhibition 615
A Municipal Policy, 865; Policy, 52; Problem in Slumland (illus.) 227
Progress, 5, 86, 167, 247, 349, 427, 507, 609, 685, 786, 945 (25 Nov.), 1,045
Reform Council, 572; Reforms 71
Rural Bye-laws, ...(25 Nov.) 945
and Transit: Leeds Conference 706
Urban and Rural: Dr. Evans's Paper 559
in Western Europe (illus.), 701; (illus.) 721
Hull Museum 26
Water Supply ... (2 Dec.) 942
Huntingdon Guardians' Vagrancy Report 533
Hygiene for Schools 566
Hygienic School Furniture: Sanitary Congress 634

I.

Ice-cream Dealers' Premises, 411; Poison, 584.
Ilford Sewage Works 354
Ilfracombe Main Drainage ... 641
Water Supply (illus.)... ...641
Ilkeston Gas Profits 629
Library 739
Incorporated Municipal Electrical Associatiod (illus.) 469, 535
Industrial Freedom League, 151, 590—see also B.E.T. Co.
Schools (illus.)... 861
Infantile Mortality, 311, 449, 469, 496; Huddersfield Mayor's Scheme, 923, 956; Low Out-Relief and, 593, 633, 653, 694; Milk Supply and, 822; Sanitary Congress Paper, 634; W. F. Anderson at Sanitary Congress, 615
Interest on Loans 245
Investors, Small Municipal ... 71
Irish Local Taxation 605
Islington Adopts Libraries Acts 652
Mayor's Dinner ...803
and Municipal Savings Banks and Underground Bakehouses 474
Wages 929
Italy: Public Pawn Office ... 158

J

Japan, Municipal... 625
Jarrow and B.E.T. Co. 351
Town Hall 481
Johannesburg's Municipal Progress 225
Jones, Atherley, M.P., and B.E.T. Co. ...591, 611, 631, 752

K

Keighley a County Borough ... 784
Library (illus.) 739
Town Clerk 925
Kennington-Streatham Tramways Electrified (illus.) ... 549
Kensington Housing (illus.) ... 927
Kidderminster and B.E.T. Co. 691
King's Norton: More Councillors 739
Kingston: Policeman to Mayor-Elect 848

L

Labour Bureaux 32, 91, 189, 339, 385, 466
Colonies 313, 633, 653, 693, 881 (illus.), 893, 913, 933, 953 (illus.), 1034
Laindon Labour Colony 881 (illus.), 913
Lambeth and Medical Out-Relief 513
Lanarkshire County Council Surcharge 644
Lancaster, Lord Ashton's Gifts 918
Market Question 878
Land Around London, uncultivated: Proposal for Unemployed 446
Values ... 12, 51, 89, 111, 131, 151, 205, 230, 312, 351, 385, 662, 712, 726, 766, 849, 897, 992, 1004, 1036, 1,044; Municipal Conference 826
Lead Poisoning and Water Supply 157
Leamington and B.E.T. Co. ... 498
Leeds Amalgamation 682
Auditor Criticised 71
Auditor's Remuneration, 6: Speech, 51
Auditor Sues Corporation ... 362
Baths (illus.) 885
Bricks from Gas Residuals ... 84
Consolidation Bill ... 71, 152
Extension of Boundaries 25, 123 (illus.), 266
Gas Profits 419, 422
Hospitals ... 901 (illus.), 938
Housing and Transit Conference 706
Insurance 112

Loans 704
Market Hall ..524, 561 (illus.), 664
Sewage Disposal 869
Town Clerk 8, 77
Tramway Employés, 437; *Leeds Mercury* and *Municipal Journal* 443
Legislation, Municipal, 1904 Session 905
Leicester Charters 466
and Elberfeld System ...771, 773
Gas Manager and "Naptha-lene" 812
Gas Profits 785
Water Profits, 785: Scheme, 649
Leigh Gas Profits... 422
Water Profits 422
Leighton Buzzard: Dispute with Post Office 749
Letter-boxes on Tramcars ... 317
Leyton Bill and "Bermond-sey" Clause 466
Libraries 376, 385, 423, 489, 646, 656, 739, 783, 956 (2 Dec.), 1027, 1029
at East Ham (illus.) 442
and Education, 711; and "Social Recreation," 186; to Make them Attractive... 25
Library Association... ...664, 711
Rate Limit, 152, 439; Towns which have special Powers 152
Licensing Bill, 544; Street Improvement Schemes 512
Lichfield Lighting Scheme Blocked by Board of Trade... 391
Lifeguards for Tramcars ... 19
Life-saving Classes, Manchester 466
Light Railways Act: Mr. Bellamy's Proposal ... 791, 793
Development, 951 (25 Nov.), Future of 725
Liverpool Auditor's Report 166, 856
Baths 212, 1012
Birkenhead and Bootle: Federation ... 1003, 1023, 1031
Burial Boards 92
Corporation: "Hard Job to Remain Honest," 476; Mr. Lever's Claim against ... 566
Debts 932
Expenditure 72
Finances... 166
Housing ... 306, 381 (illus.), 823 (illus.), 951 (2 Dec.)
Municipal Officers' Guild ... 328
and National Telephone Co. (2 Dec.) 952
Police Telephones 1003
and Southport Electric Railway ... ... 239 (illus.), 259
and Street Processions 732, 745, 811, 984
and Sunday Music ... 691, 712
Ten-minute Speeches (25 Nov.) 924, 951
Tramway Profits 476
Wages 868
Water Supply 289
Livesey, Sir Geo., on Municipal Gas... ... ... 692, 723, 752
Llanelly and Muncipal Trading 431
Llandudno Advertising Association 72
Council and Company's Electricity Bill 472
Loans—see Municipal Loans
Local Expenditure: L.G.B. Annual Report, 805; R. J. Thompson's Paper, 404; Government Areas, 192, 207 (illus.), 391 —see also Electricity in Bulk
Government Reform League (illus.) 226, 232, 307
Government Supervision, cost of 245
Indebtedness ... 331, 343, 368, 371, 404, 408; Government Return, 405; Industrial Freedom League's Figures ... 332
Records: Bill for Better Custody 699
Taxation Returns, 65; London, 66; 1867-8 and 1901-2 Compared, 185; 1901-2, 289; Corporations and Urban Districts, 1902-3, 985; Counties, 684; Pauperism, 1902-3, 727; Poor Law Relief, 1903, 706; Rural Councils, &c., 1902-3, 707; Scotland, 26
London Building Acts, 909.
Bill: *Sun* Criticised (25 Nov.) 952
Boroughs: Committee Practice, 889; Mayors' Salaries, 889; Sanitary Inspection .. 889
Bridge Re-opened 266
City Corporation's Expenditure 729
City of: Lord Mayor's Show 886
Congestion 298
L.C.C. and Appointments ... 492
Boats in Parks 486
Chairman's Address on Year's Work 829, 832
Committees 258
Councillor's Interest in Piccadilly Property 869
Defers Tramway Schemes ... 492
and Education, 11, 31, 49, 58, 83 (illus.), 325, 352, 472, 524; Committee, 246, 252; Committee Meetings and Press, 372, 392, 412; Lord Welby's Budget, 366; Scheme, 91, 96; Scheme Approved 232; Technical, 744, 769
Election, 105, 145, 163, 172; Progressive Candidates, 177; Result, 211, 217; Votes Analysed 346
and Employment Agencies ... 567
Fetes Proposed... 685
Finance 611, 675, 829, 886
Garden Party 579
and Historical Buildings ... 656
Housing. 203 (illus.), 306, 569, 829, 945, 946, 951 (25 Nov), 952 (2 Dec.); Loans 131
and Licensing Bill 512
Litigation in 14 Years ... 25
Lodging House Catering, 72, 652, 832; Coffee House Keepers' Opposition ... 612
New Heads (illus.) 229
Offices 689
Overworked 909
in Parliament 932
Printing Department Suggested 591
Rate 248
Scholarships (2 Dec.) ... 945
Steamboats — see Thames Steamboats.
Stock 319
and University Education ... 675
Works Department 251
London Debt 368, 371, and Rates 9
Defective Children's Education (illus.) (25 Nov.) ... 941
East: Great Improvement Scheme 643 (illus.), 666, 667, 672
Extension of Boundaries ... 791
Fire Brigade 286
Gas, Quality of... 489
Good Templar Mayors (2 Dec.) 951
Health: Conference of Authorities 579; Report, 1902 ... 57
Increase in Value of Land ... 868
Main Drainage (illus.) 163
Pauperism Increasing.. ... 13
Paving Committee 376
Police Court Boundaries ... 689
Refuse Disposal.. 346
School Board, Passing of (illus.) 83
"London Statistics" 588
Storm Sewers 69
Street Paving 248
Traffic Commission, 191, 474; Statistics 232
Transit: £100,000,000 Scheme (illus.) 301
United Tramways and Public Roads... 171
Water, 511; Awards, 951 (2 Dec.); Board, 149, 189, 248, 409; Accountant, 89; Expenditure, 783; and New River Co., 588; "Water Lords'" Profits, 89; Purchase: A Saving. 1005
Long, Walter, and Land Values, 131; and Rural Housing ... 192
Longton Gas Profits 723
Louth Town Clerk 726

M.

Macnamara, Dr., and London Education 12
Maidstone Progressing (illus.) 741
Main Drainage in London ... 163
Manchester Accounts 667
Auditor's Report 683
and Chorlton Epileptic's Colony 673
Cleansing Department ... 766
Extension of Boundaries, 87, 285, 311, 344, 484, 804
Financial Control 803
Gas Profits 824
Housing ... 172, 192, 364, 946 (25 Nov.)
Labour Bureau 91, 339
New Fire Station (illus.) ... 421
and Salford, Proposed Union of 767, 783, 824
Schemes 727
Scholarship Scheme ... 246, 252
Stockport Competes for Suburbs 804
and Street Betting 706
Water Supply (illus.)... ... 842
Markets—see Municipal Markets
Marylebone Housing (illus.) 28, 203
Mayor and Aldermen Paid ... 298
Mayors, New, for 1904-5 ... 906
Mayors' Salaries 9, 211
Medical Officers' Pay and Position, 172; Tenure, 451
Melbourne Municipal Progress 626
Members Trading with Councils, &c.—see Towns
Menai Bridge, New Pier, &c. ... 746
"Mersey City" — see under Liverpool
Merthyr Tydvil Incorporation 595
Metropolitan Asylums Board: Report for 1903 629
District Railway Bill... ... 386
Water Board—see London Water Board
Middlesbrough Housing 72
Library 783
Progressives' Programme ... 639
Middlesex County Council and B.E.T. Co. 617, 661
District Councils Association 923
Midland Municipal Officers' Association 220
Milk Standard and Dairy Farmers 432
Supply, 571, 822, 849; Dr. E. Cautley and, 942 (2 Dec.); Finchley, 949 (25 Nov.); Lambeth, 659; London, 49, 367, 689.
Mixed Bathing 192
Monifieth Gas 776, 1026
Morley, John, Opens Woolwich Library 1027
Motor 'Buses—see Omnibuses
Cars: Local Authorities and, 24, 28; for Municipal Officers, 552
Municipal Audit, 52, 67, 272, 371, 404, 412, 552, 605, 732, 872, 952 (25 Nov.); *Municipal Journal* Prize Essays, 463, 471, 692, 846, 851; Sir A. Rollit's Views, 408.
Bakeries in Sicily 624
Banking 532, 632; Devonport, 584; Liverpool, 1012—see also Municipal Savings Banks.
Boundaries 52
Coal Fields 251
Concerts 284, 432; Leeds, 469 and County Club 434
Creches, 252, 265 (illus.), 607, 663, 672, 704; Glasgow, 691
Cremation Fees 316
Debentures 226
Debt: Return 466
Debts and Rates, 9, 491, 591—see also Local Indebtedness); *Daily Mail* criticised, 891; Industrial Freedom League on, 292
Drink 351
Education: First Year's Work 267
Elections, 1904 891
Employés as Voters 191
Engineers at Newcastle ... 385
Enterprise—see also Municipal Trading—in Germany, 147; *Journal of Gas Lighting*, 952 (25 Nov.)
Finance, 111, 212, 311, 729; "Is Panic Approaching?" 251
Golf Courses 656
Hospitals 11, 112
Insurance, 112, 189, 212, 304, 502, 571, 892; Attacked in *Manchester Courier*, 611; Shoreditch Fire, 666, 683, 712, 749
Japan 625
Libraries—see Libraries.
Loans, 931; in 1903, 27; in 1904 (six months), 585; Loan Commissioners' Report, 1903-4, 825; London, 947 (25 Nov.); Paving, 31; Safe Securities, 947 (25 Nov.)
Markets, 304—see also towns
Men and High Offices ... 812, 832
Mortar Making... 46
Museums—see Museums.
Music ... ...(2 Dec.) 951
Newspaper 565
Octroi—see Glasgow Market Tax
Oratory... ...951 (25 Nov.), 992
Profits Relieve Unemployed (2 Dec.) 947
Progress, British: Mr. Van Wyck's Opinion, 779; in Johannesburg, 225
Purity 932
Reform League—see Local Government Reform League.
Savings Banks, 612, 667, 765, 771, 792, 803, 831, 992; Bolton, 124; Deptford, 903, 926; Devonport, 491; Middleton, 502; Stoke-on-Trent, 124.
Securities, Southampton (2 Dec.) 944
Service Career, Preparation for 245
Slaughterhouses 256, 297
Municipal Small Investors... 71
South Africa (illus.) 103
Theatres, 51, 72, 989, 1012; How Maintained Abroad (illus.) 23

MUNICIPAL TRADING.

Accountant's Criticism, 811; Arguments for, 807; Attacked in *Manchester Courier*, 591; Auctioneers Affected, 731; Birmingham Ironmongers and, 932; Committee, 251, 271; Committee and Audit — see Municipal Audit, *Daily Express* Campaign, 932; Edinburgh and Leith Gas Stoves, 931; Electrical Profession and, 851; Enlightening Editors, 1012, 1031; E. B. Faber, M.P., Criticises Harrogate, 772; Grocers' Condemnation, 552; Hastings Ratepayers' Association's Criticism, 872; Holt Schooling's Criticisms, 992; How it Reduces Charges, 867; How it Relieves Rates, 192, 946 (2 Dec.); Institute of Bankers, 891; Ireland, 605; Municipalities and Initiative, 812; Llanelly Council Criticised, 431; Official Salaries, 812; Newport Ratepayers' Criticism in *Times*, 290; Pays, 422, 426, 431, 444, 465, 487, 523, 723, 745, 785, 903, 931, 946 (2 Dec.), 985, and Profits, 903; Proposal to Stimulate Interest in Municipal Life, 1032, and Rates, 1011, 1036; *Times* Compares Germany and England, 12; *Traction and Transmission's* Criticisms, 32; and Tradesmen's Interests, 352; Trading and Rating Returns, 886; *Scotsman's* Attack, 852; U.S. Consuls' Reports, 632, 951 (2 Dec.); Why Criticise Companies? 752; Wild Criticism, 552.
Municipal Tramways Association, 399, 418, 717, 778, 791, 793 (illus.), 817.
Tramways and Depreciation: A "Warning" 472
Visit to Europe 667
Murray, Ruthven—see Willesden and B.E.T. Co.

N.

National Roads—see Roads.
Neath Gas Profits 465
New Barnet and B.E.T. Co. ...1027
Newcastle Art Gallery (illus.)... 841
Baths 627, 909
and B.E.T. Co. 462
Chronicle and B.E.T. Co. ... 623
Corporation Bill: Lords' Decision 272
Extension of Boundaries 128, 326, 344, 667, 909
Housing 811
Tram Lines: Company and Running Powers, 503, 504, 505, 511, 531, 543, 551, 559, 570, 572, 587, 606, 651, 717
Tramways: Council or Company? 623, 802
"New East London"—see London."
Newport Waterworks 449
New South Wales Libraries ... 376
Newton Library 739
New York Budget 911
and Rapid Transit 1037
Sanitary Problems 298
Shallow Railway (illus.) ... 781
Site Values 111
Tammany Again 31
New Zealand and Land Values 726 766
Northampton Councillor Goes to Prison... 136
Sanitary Inspectors: Mr. Smith's "Whereas" Resolution 112
Northamptonshire Clerk (illus.) 344
North Lincolnshire Light Railway 918
London and B.E.T. Co. ... 172 211, 617, 661
London Tramways: first section opened (illus.) ... 661
Metropolitan Electric Power Supply Company (B.E.T. Co.). (See various towns.)

NOTES AND ANSWERS to correspondents on the following subjects:

Abattoirs, 1028; Accounts, 129, 289, 748, 928, 928 (2 Dec)., 949; Advertising, 768; Aldermen, 48, 548, 648, 828, 868, 1007; Allotments, 928; Appointment, can it be refused? 628; Assessments (see Rates); Audit, 129, 369, 448, 548, 888, 948; Banks, municipal, 468, 1046; Baths and washhouses, 488; Borough Chamberlain, 329; Borough Funds Act, &c., 68, 688, 988; Borough Treasurer and Recurring Payments, 428; Boundary Extensions, 787; Boundary Post, 928; Bridge Repairs, 629; Building Bye-laws, &c., 68, 88, 228, 249, 329, 387, 407, 468, 708, 908, 1046; Burial Board, 948 (25 Nov.); Burial Fees, 208; Burial Grounds, 828; Bye-laws, 129, 149, 948 (25 Nov.); Casting Vote, 29, 308, 348, 569; Cesspools, 728; Changing Council's Name, 71; Charities, 928; Children's Employment Act, 768; Club's Return, 569; Committee Meetings, 888; Committeemen's Rights, 928; Compensation for Lost Office, 948 (2 Dec.); Consumptives, 787; Contracts, 428; Co-option, 369; Corporation Stock, 48; Civil Procedure, 648; Council Meetings, 787 Councillors' Liabilities, 68, 188; Councillors' Qualifications and Disqualifications, 29, 68, 88, 129, 168, 189, 208, 289, 347, 428, 488, 529, 568, 648, 688, 708, 808, 848, 908, 948 (25 Nov.), 949 (25 Nov.), 1007, 1046; Councillor's Resignation, 668; Councillor's Rights, 188, 308; County Borough: Is it a District? 269; County Council Bills, 668; Crown Lands, 488; Danger to Property, 88; Dangerous Premises, 7; Death Certificates, 168; Deputations, 88, 828; Drains—see Sewers; Dredging River, 268; Education, 48, 168, 188, 209, 548, 908, 948, 949, 989; Elections, 7, 68, 88, 268, 369, 387, 1046; Electricity Areas, 889; Employe's Inquiry, 748: ex-Mayor Appointed Overseer, 329; Factory Inspection, 369, 787; Fire Brigade, 948 (25 Nov.); Fishing Nets on Waste Land, 548; Food and Drugs Act, 108, 448, 569, 988; Footways, 269; Foreshore Rights, 109; Gas Company's Secretary, 488; Guardians' Qualifications and Disqualifications, 48, 407, 508; Guardians' Clerk, 688; Highways, 29, 228, 249, 308, 329, 407, 568, 588, 648, 748, 1028; Hospitals, 188, 369, 529, 648, 928; Housing, 708, 848, 928; Incorporation, 348, 728, 748, 1007; Irregular Proceedings of Officials, 148; Land Sales, 688, 948 (25 Nov.); Land Values, 508; Libraries, 407, 989; Lighting, 108, 109, 129, 149, 249, 468, 488, 508, 529, 548, 588, 787, 848, 868, 888; Loans, 508, 628, 868, 908, 1028, 1046; Local Government Literature, 688; Lodging Houses, 848, 888; London Local Government, 747; Lost Property, 1007; Making-up New Streets, 148, 228, 308; Markets, 468, 508; Matshaking, 208; Mayor's Powers, &c., 208, 948 (2 Dec.); Meteorological Instruments, 708; Midden Closets, 828; Milk, 748; Minute Books: Right to Inspect, &c., 88, 108, 428, 568; Minutes in Book, 588, 628; Minutes Printed, 1007; Municipal Trading, 812; Municipal Corporation Law, 7; Music in Parks, 1028; Name of House, 7; Nuisances, 209, 812; Obstructions, 208; Officers' Position on Conversion to Urban District, 848; Officers' Security, 29, 289; Ouse Navigation, 669; Overcrowding, 728; Overseership, 289; Parish Council's Powers, 387; Party Wall, 308; Passive Resisters, 249, 407, 648, 668; Paving, 168, 208, 568; Police, 1007; Pollution of Streams, 7; Poor Law Matters, 48, 188, 249, 289, 348, 369, 448, 468, 628, 808; Precedence of Towns, 808; Printing Municipal Records, 1028; Private Street Works, 148, 208, 329, 428, 889, 988, 989; Procedure at Meetings, 928; Public Authorities Protection Act, 189; Qualifications for Various Appointments, 89, 108, 488, 529, 648, 668, 728, 868, 948 (2 Dec.), 1008, 1028; Quinquennial Valuation, 608; Ratepayers' Rights, 8, 329, 588, 668, 868, 948 (2 Dec.); Rates and Rating, 48, 88, 129, 208, 228, 249, 268, 407, 428, 448, 488, 548, 568, 588, 608, 768, 787, 929; Returning Officers, 888; Right of Way, 428; Rivers Pollution, 908; Rural Council's Powers, &c., 688; Salary Receipts, 108, 948 (25 Nov.); Sewers and Drains, 48, 168, 268, 348, 387, 608, 628, 688, 708, 768, 808, 948 (2 Dec.), 988; Shop Hours Act, 828; Signpost, Removal of, 888; Sinking Funds, 668; Small Dwellings Acquisition, 88; Standing Orders, 148, 329; Steam Roller and Underground Pipes, 7, 168; Street Repairs: Water Company's Liability, 407; Superannuation, 188, 329, 1028; Testimonials, 329; Tramways, 528, 848, 948 (2 Dec.), 949; Unemployed, 29; Urban Districts, Rights, &c., 48, 448, 988; Vacancy on Council, 188; Vaccination, 348; Voting Qualification, 249; Water, 108, 148, 228, 488, 608, 812; Weights and Measurers, 948 (2 Dec.), Workmen's Compensation, 688

Notification of Consumption ... 634
Nottingham Debt 192
Municipal Trading Profits ... 903
Water Scheme 649

O

Offensive Trades, London ...1034
Officers' Superannuation, 1011; Salaries 892
Old-age Pensions, 388, 413, 419, 933
Oldham Town Clerk 145
Omnibuses, 698; Eastbourne Motor, 366; Leyton Bill ... 499
Open-air Baths 4
Ossett Gas Profits 523
Town Hall 605
Otley Gas Supply ... 726, 748
Outdoor Medical Relief, 493, 513, 693, 754
Out-relief, 138, 153, 233, 353, 373, 433, 436, 633, 713, 733, 753, 771, 773, 788, 854, and Infant Mortality, 593; Scale in Various Towns, 813; Scotland, 333
Overhead Wire Dangers ... 99

P

Parish Without a Council ... 683
Paris's Gift to L.C.C. 322
Parliament and the Municipality 871
Pauperism in London 13
Paving Works: Loans or Rates? 1029
Pawnbroking, State, 284; in Italy 158
Petroleum Act 905
Physicial Deterioration, 947 (2 Dec.); Teaching of Hygiene 863
Physically Defective Children. London (illus.), 941 (25 Nov). —see also DefectiveChildren.
Plymouth Audit, 371; Clause, 605
Finance 411, 626
Markets 883
Water Profits 883
Police Telephones. 1003
Politics, Party, in Municipal Elections... 791
Pontefract Gas 807
Pontypridd and B.E.T. Co. 687 (illus.), 832
Gas Profits 868
Isolation Hospital 703
Poor Law Accountancy... ... 749
Association 933
Conference 173
Officers' Association, 513, 553, 894
Reform 113
Review 1047
Poplar Labour Colony, 313 (illus.), 881 (illus.), 913
Training School Boys' Camp 714
Port of London Bill, 89, 849, 912, 932; Abandoned, 632; Chamber of Commerce and, 52; Lord Avebury and, 591
Portsmouth and Sinking Funds 791
Post Office and Telephones, 250, 406, 411, 431, 566, 907, 911
Private Bill Legislation, 271; Cost of, 452, 703, 746; In 1905, 991
Procedure: Select Committee's Report 564
Piccadilly Widening, L.C.C. ... 991
Propagation of Unfit: Sanitary Congress 615
Property Owners' Associations 11
Public House Trusts 285
Houses, Municipal 32
Libraries—see Libraries.

R

Radium in Bath Springs? ... 29
Railway Fares for School Children 1034
Railways and Municipalisation 336
Ramsgate Land Regulations ... 667
Pavilion Opened (illus.) ... 521
Town Clerk 828
Rates, Increase of: W. Bateson's Paper 537
Rates Relieved by Municipal Trading: Mr. Carter's Paper (2 Dec.) 946
Rawtenstall and Electric Power Company... 611
Refuse Collection in Germany (illus.) 107
Destructors and Electricity Works: Yorkshire Power Company's Circular, ...943, 987
Disposal, 284, 346, 479, 547, 883, 993; Dustmen's "Tips," 852; Women Sorters, 726.
Religion and London Education 11
Test for Surveyorship ... 332
Remunerative Undertakings: Local Taxation Returns, 1902-3 985
Review of, 1904... 1048
Ripon Tercentenary 486
Road-making ... 109, 137, 156, 180
Roads, National 346
Road Scavenging Machine (illus.) 559
Roads, Trunk: Legislation needed 652, 672
Rochdale Housing 834
Town Clerk, 619, 632, 644 (illus.) 743.
Rollit, Sir A.: Presidential Address, Association of Municipal Corporations, 393; Audit and Debt, 408
Rotherham Corporation Act ... 667
Town Clerk (illus.) ... 200, 266
Rowton Houses 212
Royal Commission on Feebleminded 711
Running Powers Agitation—see Tramways and Newcastle Tram Lines
Powers: A. Baker's Speech.. 997
Rural District Councils' Association 426

S

St. Helens Gas Profits 422
Milk Depots 822
St. Marylebone—see Marylebone
St. Pancras Gymnasium: *Newcastle Chronicle's* Criticism 771
Housing (illus.)... 447
Libraries (2 Dec.) 956
Salford: Fire at Electricity Works 76
Gas Profits 931
and Manchester Proposed Union—see Manchester.
Police 285
Secondary Education... ... 699
Water Profits 931
Sanatorium for Scarborough (illus.) 283
Sanitary Congress ...526, 613, 634
Inspectors, London: Return, 544; Women as 625
Institute at Glasgow, 376; History of 613
Progress at Leeds 901
Scarborough Sanatorium (illus.) 283
Schools as Clubs, Birmingham (illus.) 952
School Gardens in America (illus.), 843; Cost of 874
School Libraries 1051
Schoolmasters as Councillors... 4
Scotch Education Scheme ... 271
Scotland: Local Taxation Returns 26
and Poor Law 836
Sea Encroachments, 844; Bournemouth, (illus.), 43
Sellon, S., and Traffic Commission, 811; Paper on Running Powers (2 Dec.), ... 952
Septic Tank System 456
Sewage Commission and Shell Fish 46
Disposal: Royal Commission's Report... 804
Sewers, Storm 69
Shadwell Market Site for Open Space 643, 666
Shanghai and B.E.T. Co. ... 71
Sheffield: Councillors who have "Traded" with Corporations 231
Crematorium 649
Health Council... ... 326, 464
Housing 930
£72,000 Fine 931
Markets 422
Progress in Electricity (illus.) 541
Water Scheme 649
Works Department ... 883, 911
Shell-fish and Sewage 46
Shoreditch Baths (illus.) ... 501
Electrical Exhibition 838, 858
Refuse Disposal 479
Sinking Funds: Municipal Exchange Proposed 791
Site Values 111
Skegness Sewerage System ... 848
Small Dwellings Acquisition ... 624
Small-pox Spread by Tramps 324, 635
Smethwick and B.E.T. Co. ... 537
Gas Profits 465
Smoke Problem: Sanitary Congress 613, 645
Snowdon to Bettws-y-Coed Light Railway 938
Social Service, British Institute of 825
South Africa, Municipal (illus.) 103
Southport and B.E.T. Co. ... 457
Councillors Resign 598
a County Borough 989
"Earl's Court" 675
Extension of Boundaries 46, 804
Gas Profits... 487
Wayleaves... 269
South Shields and B.E.T. Co., 71, 623, 642, 651, 711, 731, 751, 767, 831, 957 (2 Dec.)
Southwark Wants to be a "City" 764
Spalding Gas Supply 772
Market Tolls 772
Starvation in London, Deaths from 813
State Children's Association Report 313
Stepney Council and East London Improvement Scheme 643, 666, 672
Stepney Electricity Staff Outing 539
Housing (illus.)... 227
Museums 49
Town Hall 69
Stockport Town Hall, 3 (illus.), 739, 801 (illus.)
Tramways Manager 119
Stoke Newington Library ... 489
Stoke-on-Trent Electricity and Refuse Works 883
Street Lighting: Information Obtained by Glasgow ... 236
Paving in London 248
Suburbs, Planning of ... 751, 912
Supply of Electricity Bill, 384, 392, 483, 492, 509, 512, 546, 551, 571, 591, 712; Passes Lords' Committee, 587
Surface Contact 459
Surveyors: Should they Design? 1032
Sutton Coldfield Town Clerk ... 669
Swansea Telephones 322
Swimming, Bradford Teaching of, 376; Local Authorities and, 304; Without Water, 482
Swindon Bill and "Bermondsey" Clause 466

T

Tramway in New York... ... 31
Tanat Valley Light Railway ... 39
Tasmania: Local Government Reform, 291; Municipal Enterprise, 663
Technical Education—see also Education and under Towns; Cost of, 1902-3, 942 (2 Dec.)
Tees Valley Water Scheme .. 828
Telephone Contracts: Appeal Case 66
Telephones, Cross Channel ... 269
TELEPHONES, MUNICIPAL.
Bournemouth, 652, 826, 887; Brighton, 223 (illus.), 465, 523, 874, 1025; Glasgow, 31, 67, 192, 269, 443, 566, 584, 732, 751, 1025; Guernsey, 205, 1026; Hull, 874, 981 (illus.), 1025; Liverpool, 952 (2 Dec.); London, 383; Portsmouth, 366, 483, 1025; Swansea, 322, 538, 566, 826, 1025
Telephones, Municipal, 52, 472; Attacked in *Manchester Courier*, 592, 772; A. R. Bennett on English Telephony, 1025; and Company Finance Compared, 946 25 Nov.); v. Company, 749, 1025; Deputation to P.M.G., 907, 911
Municipalities and Post Office 566

Telephone Policy, 250, 306, 406, 411, 431, 472, 566, 907, 911
Telephones, Police, Liverpool, 1003; Slot System Abandoned, Liverpool, 739: Tactics, 31, 749: Transfer—see Telephone Policy.
Thames Dam 409
Steamboats. 372, 467, 571; Contracts for London, 732, 892
Todmorden Gas Profits... ... 465
Tottenham and B.E.T. Co., 45, 104, 156, 165, 189, 791
Councillors Surcharged ... 57
Traffic, Heavy Traction, (2 Dec.) 944
Train, Geo. F., Death of ... 79
Training Ships for Boys (illus.). 173, 187
Tramcar Design and Construction 637
Tramps, 694, 713, 774; and Disease, 873, 904: in Parks, 434
Trams and Motors 412
Tramway Accidents: Local Authorities' Liabilities 175, 199
Accounts, 795: Associations' Joint Meeting, 457: Plymouth Criticised, 832.
Company Tactics, Dudley and Wednesbury 497
Employes, 19, 32, 79, 80, 100, 119, 159, 176, 200, 219, 240, 299, 399, 437, 457, 498, 517, 518, 537, 597, 617, 637, 677, 678.
Managers. Metropolitan Association of 997
Manchester to Bradford by 577
Men, seats for 877
Orders, 1904 758
Parcels Delivery, Bradford, 998; Bury, 997
Pioneer Dead 79
Tramway or Railway? Thornton Assessment Case ... 877
Tickets Test Case ... 537, 597, 857
Undertakings: Board of Trade Returns 127
and Vehicle Workers' Association 299

TRAMWAYS.

Aberdare, 677, 957 (25 Nov.); Accrington, 737; Aston, 11, 317, 377, 491, 497, 738, 777, 818; Ayr. 1017: Barking, 143 (illus.), 957 (2 Dec.): Bath, 39, 159; Belfast, 159, 337, 738; Birkenhead. 300, 400, 517; Birmingham, 11, 19, 39, 59. 140, 252, 312, 357, 358, 377, 378, 437, 472, 477 (illus.), 491, 698, 818, 872, 897, 957 (2 Dec.); Blackburn, 239, 918; Blackpool, 738, 838; Bolton, 378, 438, 731, 751; Bootle, 857; Bournemouth, 837, 897, 938; Brierley Hill, 777; Brighouse, 200; Brighton, 457, 957 (25 Nov.); Bristol, 139; Bradford, 39. 259. 260, 280, 317, 357, 377, 637, 678, 1037: Burnley, 139; Burton-on-Trent. 417, 697; Bury, 40, 120, 337, 518, 681 (illus.), 717, 738, 818. 838, 857, 997, 1017; Cardiff, 1017; Cheltenham, 140; Chesterfield. 657, 1018, 1037; Colchester, 597. 621 (illus.), 957 (2 Dec.); Crewe, 998; Croydon, 577; Derby, 758, 859 (illus.); Dewsbury, 299, 358, 697; Douglas, 219, 758; Dover. 717, 957 (2 Dec.); Dukinfield, 438; Dundee, 677; East Ham, 363, 657, 777: Edinburgh, 60, 175, 240. 260: Exeter, 957 (2 Dec.); Farnworth, 338; Glasgow, 159, 175. 219, 317, 337, 338, 400, 477, 518, 565, 657, 837 (illus.), 888, 897 (illus.), 937, 958 (2 Dec.); Gloucester, 377; Hales Owen. 777; Halifax, 175, 200, 377, 418. 487, 758, 857; Handsworth, 752, 757, 778; Harrogate, 357; 377, 399; Hartlepools, 239: Heckmondwike, 317; Heywood, 337, 677, 1017; Huddersfield, 80, 337, 400, 577, 737; Hyde, 438; Ilford, 99, 119, 139, 326, 523; Keighley, 176, 200, 299, 834: King's Norton, 140, 658; Kirkcaldy, 219, 497; Leeds, 160, 299. 317, 357, 377, 378, 399, 417, 423, 443, 498, 577, 597, 657, 777, 818, 857; Leicester, 357, 400, 401 (illus.), 437 (illus.), 537, 558, 657, 738, 878; Leith, 60, 120, 175, 240, 260; Lincoln, 39, 120; Liverpool, 79, 132, 199, 279 (illus.), 317, 438, 637, 777, 792, 857, 877, 1038; Llanelly, 957 (25 Nov.); L.C.C., 59, 120, 159, 199, 272, 299, 357, 377, 400, 549 (illus.), 557, 657, 698, 718, 777, 829, 897. 912, 917, 942 (25 Nov.), 1018, 1031; Lowestoft, 677, 692, 937; Maidstone, 741 (illus.), Manchester, 80, 100. 119, 219, 338, 399, 438, 538, 557, 618, 718, 758, 838, 997; Middlesbrough, 92, 418; Mossley, 438; Newcastle. 139, 219, 412, 417, 503, 597, 623, 677. 697, 717, 731, 801, 878, 1017; Northampton, 372, 601 (illus.): North London, 617, 661, 1037; Nottingham, 477; Oldham, 40, 120. 518; Ossett, 299; Paisley, 399; Perth, 677; Plymouth, 422, 597, 832, 883; Pontefract, 59; Pontypridd, 687, 832; Portsmouth, 697, 767; Preston, 239; Pudsey, 698, 718; Quarry Bank. 777; Radcliffe, 399; Rhondda, 938; Richmond, 957 (25 Nov.): Rochdale, 40, 99, 120, 240, 337. 518, 681 (illus.), 717, 738, 838, 857, 1017; Rowley, 19, 777; Rochester. 1052; Rugby, 139; Salford, 399, 400, 598, 717, 858, 931; Sheffield. 19, 60, 526, 658, 678; Shipley, 317; Smethwick, 777, 957 (25 Nov.); Soothill Nether, 99; Southport, 377, 457, 487; South Shields, 240, 377, 623, 731. 751, 767, 831, 937, 957 (2 Dec.), 1018; Scarborough, 399, 418; Stalybridge, 438, 1017; Stockport, 140, 778, 877; Stockton, 92: Sunderland, 99, 176, 444, 738; Swindon. 677; Swinton and Pendlebury, 577; Tanat Valley, 438; Tees Side, 92; Thornaby, 92; Torquay, 240, 437; Wakefield, 357, 886; Wallasey, 657; Walsall, 20, 657; Walthamstow. 263 (illus.); West Bromwich, 100, 338; West Ham, 63 (illus.), 183 (illus.), 239, 300, 357, 957 (2 Dec.), 1017, 1037; Weymouth, 937; Wolverhampton. 60, 175, 537, 565; Worcester, 99; Yarmouth, 1017; York, 678, 757, 783; Yorkshire, 377.

Tramways: Arrangement of Men's Duties... 795
Automatic Regenerative Control 877, 918
Mr. Beaumont on "Peril of Electric Trams" 291
Over Blackfriars Bridge ...1031
Cardiff Corporation Criticised 631
Check System 937
as Coal Carriers (illus.) ... 737
Competing with Railways, 20, 139, 757, 818
Current Economies 795
And Depreciation: Bolton's Proposal, 731, 751: Company and Municipal Compared 445
Dolter System... 240
Equipment and Maintenance of Cars 817
Financier Criticises Municipalities... 672
for Goods Traffic 80
Growth of Electric Traction.. 858
Halfpenny Stages 39
and Land Values 712
Life Guards 199
and Light Railways' Association, 139, 318, 339; Officials' Association ... 898, 917
Local Government Areas (illus.) 192, 207
London Borough Council Veto 917
L.C.C.: American Mistaken Criticism 671
L.C.C. Wages 617
London United and Roads ... 171
Mixed Systems of Traction... 796
Municipal, Chicago's Demand for 307
Open Conduit Difficulties, L.C.C. 120, 128
Overhead Equipment .. 817
Polyphase Sub-Stations ... 536
Running Powers Over Municipal Lines, 305, 311, 351, 357, 383, 412, 462, 485, 492, 503, 504, 505, 511, 531, 543. 551, 559, 570, 572, 587, 606, 651, 731, 952 (2 Dec.)
Speed of 219, 898, 1018
Top Covers ... 617, 771, 777
Trolley Boom Experiments... 658
for Troops 749
Yorkshire Post Criticises Bradford 671
Transvaal Civic Government ... 225
Treasure-Seeking Nuisance ... 69
Truro Town Clerk 784
Trust v. City in America ... 564
Public House—see Public House Trusts).
Trunk Roads—see Roads.
"Tunbridge Wells" Audit Clause 605
Corporation's Cattle 303
and Education 692
Electric Lighting 372, 379, 451, 931
Tynemouth a County Borough 675, 816
Town Clerk (illus.) ... 726, 743
Water Loan, 562; Supply, 699
Tyneside Tramways Company's Bill (see Tramways: Running Powers), Company's Annual Party... ... 651

U

Underpaid Appointments ... 502
Unemployed, 28, 32, 93, 191, 293, 653, 713, 733, 753, 773, 783, 788, 893, 911, 926, 933, 947 (2 Dec.), 949 (25 Nov.), 953 (25 Nov.), 953 (2 Dec.), 993; Guardians Confer with Mr. Long, 827, 845; Position in Various Towns, 845; and Rates, 851; Sir A. K. Rollit at Municipal Corporations Association, 846
Universities, Civic 675
Urban Districts, New, and Compensations 651

V

Vaccination 473
Vagrancy: Committee of Inquiry... ... ... 532, 533
Vagrant Problem: General Booth's Proposals ... 184
Valuation Bill, 352, 363, 432, 433, 463, 473, 493, 512, 564; abandoned, 632
Legislation 111
Verminous Houses 479
Vivisection... ... ... 373, 894
Village Lighting: Clarafax Lamp 879

W

Vacant Lots in America ...446, 1041
Wakefield Town Clerk 324, 502, 523, 644
Walworth Housing Scheme (illus.) 203
Warrington Corporation, Members Charged with Trading with, 807; Commissioners' Report, 626, 864, 871
Water Arbitration Cost ... 358
Orders, 1904 745
Supply, Lead Poisoning and, 157—see also under Towns
Underground: Health Congress 664
Webb, Sidney, on County Councils 252
Weights and Measures Bill, 479; Inspectors 426
Welby, Lord, on Local Indebtedness 368, 371
West Bromwich and B.E.T. Co. 100
West Ham Stock... 434
West Hartlepool Brickmaking 743, 783
Westminster Housing 386
New Mayor 925
Officers' Club 1014
and Sunday Opening of Libraries 1029
Whitby Projects 802, 842
Water Supply 883
Whitechapel's Success in Poor Relief 333
White and Co., Ltd., J. G. ... 539
Widnes Gasworks 1026
Wigan Extension of Boundaries... 884
Willesden and B.E.T. Co., 85, 91, 104, 125. 131, 571, 604, 783, 921 (illus.)
Wiltshire Education Grants ... 579
Wimbledon Council Scene ... 662
Incorporation (2 Dec.) (illus.) 323, 941
Town Clerk (illus.) 1006
Windsor Extension of Boundaries 29
Wishaw Gas Scandal 499
Withington Favours Amalgamation with Manchester ... 87
Wolstanton Housing 786
Wolverhampton and B.E.T. Co. 175
Corporation Bill 272
Ice Stores 272, 726
Refuse Destructor 345
Water 565
Women as Councillors 152
Dust Sorters 726
and Local Government ... 379
as Sanitary Inspectors ... 625
Women's Occupations, Health Aspects of 635
Wood Green and B.E.T. Co., 32, 439
Woolwich Library Opened by John Morley 1027
Workmen's Trains, 689; London, 949 (25 Nov.)
Works Departments 251
Worth Valley County Borough —see Keighley.
Wrexham Town Clerk 816

Y

Yarmouth Council's Finance Methods 212
and Street Betting 1006
Town Clerk (illus.) ...502, 544
York Market ... ...(25 Nov.) 947
Young, John, leaves Glasgow, 812, 817 (illus.), 892

Z

Zone System of Railway Travel 259

copy" contributed by that generous organisation to needy newspapers has this year considerably diminished in volume. It is becoming increasingly recognised that the remedy for the large rating burdens that oppress our cities and large towns is not less municipal enterprise but rather more of it, concurrently with a broadening of the basis of taxation in a direction such as that of taxing land values. With that recognition has naturally come an impetus to the movement which seeks to attain the latter object, and the prospect of a Land Values Taxation Bill being placed upon the Statute-book was never greater than at the present time. The movement has traversed the three stages which Lord Macaulay pointed out almost invariably precede legislation, and although the attitude of the present Government concerning it is vague, there is not the possibility of doubt as to the intentions of the next.

Municipal Banks.

Land values is one of the weapons that is going to defeat the anti-municipal traders; municipal savings banks, as they are popularly called, is another; and extended local government areas is a third. The advance that has been made towards the municipal savings bank this year has drawn from the discomfited supporters of vested interests a terrible shriek. Appropriately enough, the advance has been assisted by the bankers themselves, who threatened to cut off supplies if local authorities did not desist from engaging in enterprises that came into conflict with undertakings with which the said bankers were associated as directors. Worse tactics could never have been adopted, for in the end these monopolists will lose their monopolies as well as some of the best customers their banking concerns have ever had. The municipalities, threatened in a vital part, discovered a new source of revenue in the savings of their citizens, and many have been the schemes devised during the twelve months with the object of diverting from the Post Office to the municipal exchequer the millions of money that stand to the credit of the thrift of the English workman. The difficulties that always arise in the initial stages of a great forward movement have been in this case, we think, most effectively solved by Liverpool, which has adopted the suggestion put forward many times in these columns that municipal bills, or bonds, shall be made payable to bearer, thus sweeping away the inconveniences that might arise at any time from an unexpected run of withdrawals consequent on, say, a period of trade depression. Parliament cannot consistently withhold its approval to Liverpool's proposal, as it is continually adding fresh duties to the already large obligations of local authorities. Money must be found at reasonable rates in order to carry out these duties, and the opposition of the bankers makes it essential that municipal progress shall be rendered independent of the prejudices of private traders. The municipal savings bank will provide the money that is needed with unquestionable security to the citizen-depositor, and will induce the latter to take a more intelligent personal interest in his civic development and administration.

Larger Areas.

In addition to the developments we have mentioned, the year 1904 has witnessed the growth of several tendencies, totally dissimilar in their individual operations, but all moving towards the common goal of the larger local government area. There have been numerous proposals for the extension of cities and towns by amalgamation and absorption, culminating in the significant scheme to which we have recently called attention, for the federation of Liverpool, Birkenhead, Bootle, and adjacent districts. There has been a move at Durham towards a scheme of electricity supply that shall embrace the whole county area, and several corporations have applied—whether successfully or unsuccessfully does not matter for our present purpose—for an enlargement of their powers so as to enable them to extend the advantages of their lighting schemes to outside districts. The company interests have replied to this development by Lord Wolverton's Supply of Electricity Bill, which seeks to dispense with local consents in large electricity schemes, and which contains other clauses that will have to be vigorously fought if the public interests are to be protected. Bodies like the Yorkshire Power Company, too, are strenuously opposing any endeavour that is made by a local authority to extend its area for electricity supply purposes—opposition that shows how rightly the monopolists interpret the meaning of this tendency. Lastly, there has arisen a demand for the construction and operation of light railways by county councils, and it has been shown how the agricultural industry could be enormously benefited by systems of light transport linking up the cities and towns with the country districts. All these movements represent an unconscious protest against the limitations of the present municipal areas for general public services, and indicate that the time is rapidly approaching when boundaries will have to be revised in order to meet new requirements, and to enable local authorities to efficiently discharge their duties, which are being increased in number and in importance every year.

Education.

To the task of co-ordinating and developing our educational system, municipal bodies have put forward their best energies during the last twelve months. By the 26th March, 1904, the Education Act of 1902 had been in operation for one year. The municipalisation of education has upon the whole met with good results. There has been noticeable an honest attempt upon the part of the new local education authorities to carry out the provisions of the Act as they stood. Here and there in England, difficulties have been raised in connection with administrative details, but with the exception of Wales, there has been little real friction upon religious grounds. The chief feature common to the administration of the Education Act of 1902 and 1903 has been the great efforts made to attract scholars by means of extensive schemes of bursaries and scholarships. Foremost has been the scheme of the metropolitan authority—estimated yearly cost over a quarter of a million—but still in the air. Next we have Manchester—£12,000 a year—Lancashire, Gloucestershire, Staffordshire, &c. The urgent needs of secondary education have received attention, but spade work only has been accomplished so far. The dearth of teachers has been in the front rank of the debates of all the authorities, and various attempts have been made for coping with this serious evil. The new regulations issued by Whitehall for the training of teachers have opened up the way by the one year's training facility and the separation of hostels from the residential colleges. A noteworthy feature of the year has been the munificent gifts to education. The influence of educational methods abroad, especially in America, has been spread by the issue in April of the Mosely Commission Report. A demand has arisen amongst some of the new education authorities for association and the benefits of combination. As a result, the year has seen the formation of an association of education committees. The report of the Inter-Departmental Committee on Physical Deterioration which was issued in July has been rightly regarded as the most illuminating and valuable educational Blue Book of recent years. An item of importance was the transfer in April of the Poor Law school inspectors to the Board of Education. Our Scottish friends have pursued their way on the old well-known lines, with the passing exception of the Education Bill, which was introduced into Parliament in April; but, though well received, was not destined to survive. The event of importance in London was the abolition on May 1 of the School Board and the Technical Education Board, and the appearance of the London County Council as schoolmaster.

General.

The year has seen the accession to county borough dignity of Blackpool and Tynemouth, and East Ham has become a borough. Wimbledon, too, has obtained its charter, and the election for the first Town Council will take place next November. Most of the large districts around London are attempting to fortify themselves against the supposed designs of the County Council, by incorporation. The municipal telephone movement has made as much progress as was to be expected in view of the uncertainty regarding the Government's proposed action concerning this important public service. The opinion is now almost unanimous among the municipalities that it would be sheer folly to buy out the National Company instead of waiting until the expiration of the lease seven years hence. Purchase now would make cheap telephones an impossibility, and would throw away the admirable pioneer work that has been accomplished by a few municipalities. Glasgow, Hull, Portsmouth, Brighton, and Swansea are showing that an efficient telephone service can be provided at about half the fee usually charged by the monopoly. The principal occurrence in the tramway world this year has been the attempt of a private company to secure compulsory running powers over the lines of a corporation system—that at Newcastle-on-Tyne. The move was opposed by the whole weight of municipal influence, and was defeated. The municipal insurance scheme is rapidly gaining supporters, and is now on an unimpeachable financial basis. Particular attention has been directed towards the necessity for a purer and more adequate milk supply, and eminent experts in the medical profession have asserted that thorough municipalisation is the only remedy. The purchase of the London water companies' undertakings has been effected by the Metropolitan Water Board, and Birmingham has inaugurated its new supply from the Welsh mountains. Liverpool, too, is making good progress with its extensive new works, and the Derwent Valley scheme is pushing onwards. Viewing the municipal movement as a whole, there is every justification for the assertion that its hold upon the thoughtful and ambitious citizen was never greater than now, and that its prospects were never brighter.

ELECTRICITY SUPPLY.

Notable Points in the Year's Work, and Some Marked Changes in Plant. Results at Hampstead, Exeter, Derby, and West Hartlepool. The Growth of Electrical Supply and its Keen Competitor—Gas. The True Comparison between Gas and Electric Lighting Largely a Matter of Conjecture. Results of Up-to-Date Tests and Their Publication.

FOR many undertakings the year's work is over by the time these remarks appear in print, and the first of the accounts for the year now closing should be available for comparisou with previous records very shortly. Owing, however, to the fact that corporations prefer, wherever possible, to make their electricity accounts coincide with the general accounts of the municipality, it will be some months before it will be possible to say what changes have recorded themselves iu the financial year 1904. In the meantime, there are several returns which delay in publication or want of space have prevented their being commented upon, and these will occupy the interval preceding the appearance of the current year's figures. It is probable that we shall find a tendency towards less rapid increase in the output for lighting during this year owing to the bad state of trade, which has rendered it necessary in many businesses to defer large outlays in avoidable alterations and extensions, and to the increased energy with which gas companies have pnshed forward the various forms of mantle lighting. Public electric lighting has not been extensively adopted during the year for the same reason, and the increase in this section will most likely be found to be due to new stations having started rather than to any general extension on the part of those which have been at work for some time. Motive power has been a department in which great progress has been made, and the growth in output in many cases should be phenomenal, with an all-round improvement in the load factor. That class of motive power derived from the additiou of a traction load should have a very marked effect, as in the provinces most of the medium sized undertakings are of the joint character, now dealing with both lighting and tramways.

❦ ❦ ❦

Marked Changes During the Year.

AT the close of the year it would be difficult to state any particular direction in which remarkable improvements have been effected. Few striking novelties have been introduced in the past twelve months, and fewer still have been left with us to be taken over to a New Year as a legacy from the past. The most marked change is in the class of prime-mover to be found in central stations, the larger units called for having displaced the vertical engine, and brought about a disposition to adopt extra high speeds and their concomitant, the steam-turbine. This has caused the cost of plant per kilowatt to be rapidly reduced, until it is now about a half of what it was only a year or two ago. The favour with which three-phase working is regarded has reacted upon the turbine, as the difficulties which accompanied its use were principally of an electrical character, and connected with commutation of continuous currency. Oil-immersed switch-gear, set in non-combustible chambers with auxiliary control from a distance, has become standardized for high pressure and extra high pressure supply. Cables have not altered; the fashion which was set a year or two ago of laying them solid in molten bitumen or pitch has to some extent run itself out, and the conduit—in one of its multifarious forms—is again coming to the front. The simplicity of the uniform tariff, as opposed to the sliding scale of charge for electrical energy, has led to its adoption more generally, special cases being met by a differential tariff of high charge during peak hours, and low rate during the remainder of the day and night. As meters are now on the market comprising one set of motor and brake gear, and two counting trains with a mechanical change-over action controlled by a clock requiring winding only once a month, the coming year will very likely see extensions of this very useful principle.

❦ ❦ ❦

Exeter and Derby.

THE City of Exeter electricity undertaking sold 441,879 units in the year ended March 31 last. Of these 366 452 were taken by private consumers and 75,427 by the public lighting, which comprised 45 arc lamps and 10 incandescent lamps. The maximum supply demanded was 452 kilowatts. The receipts from current sold were £10,336; and, including sundry amounts:—

The revenue derived from sales of current, &c., amounted to		£10,399
And the working expenditure to		6,252
Leaving a gross profit of		£4,147
Out of this sum the following requirements were met:—		
Interest on mortgage debt	£1,832	
Sinking fund instalments	1,120	
Bad debts	76	
Total of capital and special charges		3,028
Surplus for year		£1,119

Another undertaking which has made a profit of an amount between £1,000 and £2,000 is the electricity department of the Derby Corporation, also an alternating system; but the total receipts in this case are double those of Exeter.

The revenue derived from sales of current, &c., amounted to		£22,250
And the working expenditure to		10,782
Leaving a profit of		£11,468
To which was added interest received		53
Making a gross profit of		£11.521
Out of this sum the following requirements were met:—		
Interest on mortgage debt	£4,838	
Repayment of principal	4,867	
Stamp duty	38	
Bank charges	60	
Total of capital and special charges	£9.803	
Surplus for year	£1,718	

This is a material improvement upon the preceding year's results, when the surplus was £597. The greater surplus comes from the increase in revenue of £3,269, against which there was only an addition of £1,816 in expenditure, leaving the gross profit more by £1,453. Out of this sum the extra capital and special charges amounted to £332, leaving the balance of £1,121 to swell the surplus, and bringing it up to the figure given.

❦ ❦ ❦

Larger Profits at Hampstead.

WITH the exception of Hampstead, we have summarised the results attained by the boroughs in the metropolis. The Hampstead figures to March 31st, 1904, show that:—

The revenue derived from sales of current, &c., amounted to		£58,051
And the working expenditure to		29,131
Leaving a gross profit of		£28,920
Out of this sum the following requirements were met:—		
Interest on mortgage debt	£10,157	
Sinking fund and repayments	12,378	
Interest on bank overdraft	589	
Total of capital charges		£23,124
Surplus for year		£5,796

There has been a large increase in the capital charges, which has absorbed half the extra revenue. The receipts exceeded the previous year by £10,506, and expenditure was greater by £3,797, leaving the gross profit augmented by the sum of £6,909. The capital charges required au extra sum of £5,553, which left the surplus higher by £1,356. As the previous surplus was £4,440, with even the considerable extra burden thrown on the undertaking by the extensions, the snrplus is the good all-round sum of £5,796.

West Hartlepool.

ALTHOUGH West Hartlepool last year had to record a deficiency upon the year's working the loss has been reduced to about a third, and the current year's accounts should show that the income has met all the expenditure for the twelve months. This, again, is a case where the increase in output is remedying matters, for the extra income amounted to £1,896, and the expenditnre being greater by only £649 left the gross profit more by £1,247. Of this £203 was taken up by additional capital charges, leaving £1,044 to bring the deficiency down from £1,604 to its present figure of £560. The accounts show that—

The revenue derived from sales of current, &c., amounted to		£8,076
And the working expenditure to		4,514
Leaving a gross profit of		£3,562
Out of this sum the following requirements should have been met:—		
Interest on mortgage debt	£1,638	
Instalments of principal repaid	2,484	
Total of capital charges	£4,122	
Less gross profit as above	3,562	
Balance, being deficiency for year	£560	

❦ ❦ ❦

The Buoyancy of the Gas Industry.

IF imitation be, as the proverb asserts, the sincerest form of flattery, those of our readers who have cause to be well wishers to the electrical industry must have found many good reasons to be satisfied with what was shown at the Gas Exhibition recently held at Earl's Court. The feature which seemed to be predominant was the outcome of the gas engineer's wish to copy the style of electrical fittings. Inverted mantles, gas "arc" lamps, lamp clusters, and a host of other details bearing in one or more points a meretricious resemblance to electrical apparatus, showed how keenly alive the gas industry is to the inroads which have been made upon its preserves by the growth of electrical supply. On the other hand, the oppressive atmosphere and high temperature of the exhibition galleries made an excellent object-lesson which must have been taken to heart by the many visitors. The old lady whose objection to electricity is confined to its coldness and want of comfortable warmth may have learned that this is purchased at the expense of an atmosphere vitiated by the gaseous products of what is too often incomplete combnstion. We are, however, the last to decry the achievements of a competitor, even where the industry represented by this section of the *Journal* is hit hard, and there can be no gainsaying the economical changes which have taken place in the utilisation of gas in the last decade. To be able to provide 40-candle power with a cubic foot of gas per hour—as is attained by some of the high-pressure gas systems on the market—leaves the electrical engineer with plenty of leeway to make up. While there is nothing to touch incandescent electric lighting for domestic purposes, and for large business premises the arc lamp is hard to beat, there is an intermediate region wherein the incandescent gas mantle to-day is more than holding its own, and the electrical engineer awaits some new development of science to assist him.

❦ ❦ ❦

Rival Illuminants.

IN an age of specialisation, it is of great advantage to the consumer of electricity to be able to call in disinterested experts who can impartially advise as to the quality of lamps and other devices. The testing of the light-giving efficiency of electric lamps seems a simple matter enough, but if reliable results are sought, it is the cheapest in the long run to apply to those who have made this work a matter of detailed study. More especially is this the case when the comparison between gas and electricity is the question at issue. In many of the large bnsiness premises which have so generally adopted electric lighting, the cost of the lamps used is a fraction of the expense entailed by lighting. A lamp dnring its life dissipates an amount of electrical energy which has a value greatly in excess of the lamp itself. Again, although many figures have been published, the true comparison between gas and electric lighting on a modern

basis is still largely a matter for conjecture. The two subjects should now be brought up to date if the results of some tests, which have been shown to engineers and other interested, taken up jointly by the Westminster Electrical Laboratories, Limited, and Messrs. A. Wright and Co., of Westminster, are published. These firms, considering that the data available are not sufficiently conclusive, have made special arrangements for photometrically examining modern methods of illumination, and as they are experts in measurement and have no direct interest in the manufacture of gas or the generation of electricity, their results should be valuable to the councillor who has so often to meet the conflicting claims of the rival illuminants. As time goes on we may look for the advent of the electrical testing expert who should hold as good a position and do as useful work as the analyst at present does in the matter of pure water and unadulterated food stuffs.

THE ENCYCLOPÆDIA OF ACCOUNTING.*

THE sixth and last volume of the "Encyclopædia of Accounting" has now been published. It covers the headings "Sale of Goods" to "Wine Merchants' Accounts." The whole consists of articles written by many contributors, including some of the most eminent living authorities on the different branches of accounting, and has been compiled under the editorship of Mr. George Lisle, C.A., F.F.A. The final volume contains a complete index to the work, and includes (as was the case with the earlier volumes) not only articles directly dealing with accounting subjects, but also contributions on the several connected legal subjects, a knowledge of which may be useful to accountants in the performance of their duties.

The most important article in this volume, so far as local authorities and their officers are concerned, is that on "Tramway Accounts," by Mr. James Dalrymple, C.A., accountant and deputy general manager of the Glasgow Corporation Tramways. Mr. Dalrymple deals very thoroughly with the subject, and sets out forms found by experience to be suitable for adoption by local authorities for their tramway undertakings. Reference is also made to the accounting system adopted in the United States and on the Continent. The controversial subject of depreciation is very lightly touched on, and the article concludes with some useful observations on the valuation of tramway undertakings for purposes of income tax assessment and local rate assessment.

The "Encyclopædia" has been in course of production for several years. It deals with every subject which will ordinarily come within the scope of an accountant's duties, whether in connection with public or private accounts or auditing, and the work will, no doubt, form for a long time to come a standard authority on accounting in all its branches.

GLASGOW OCTROI.

THE question of the levying of an octroi tax not only on clothing and fruit, but also on horses within the city boundaries, again engaged the attention of the Glasgow Town Council this week. It was stated that the dues were already in force, and that inspectors were going round stables inquiring how many horses had been sold. The preferential nature of the movement was pointed out, and a motion sending back the minutes for amendment was carried.

THE funeral took place on Tuesday at Bradford of the late superintendent of the Salford Fire Brigade (Mr. A. Bentley). Mr. Bentley joined the Fire Brigade in 1878, and was ultimately appointed second officer. He resigned upon receiving the appointment as chief of the Salford Brigade, which post he had held for thirteen years at the time of his death. He was forty-four years of age.

* "Encyclopædia of Accounting," edited by George Lisle, C.A., F.F.A. Vol. VI., "Sale of Goods" to "Wine Merchants' Accounts." (Green and Sons, Edinburgh and London. 20s.)

CORRESPONDENCE.

"MUNICIPAL TRADING RELIEVES RATES."

To the Editor.

SIR,—It often happens that two opposing disputants, by picking out figures that suit them and suppressing those that don't, manage each to make out his case from the same official return.

As I am accused of having treated in this way Mr. James Carter's return on rates, by "F. A. B.," who claims to have made "an unsophisticated examination," I beg to refer to "F. A. B.'s" own letter, in which he unwittingly shows that profits from municipal trading do not reduce rates. Here are his own words:—"Ten towns are given in it which relieve rates to the extent of 1s. or more. The average rates in these towns are almost exactly 7s. 2d. Fifteen towns derive no profits from municipal trading. In these towns the average rates slightly exceed 7s. 2½d."

So that on "F. A. B.'s" own showing the rates in ten towns which make 1s. or more profit are substantially no lower than in fifteen, which make no profit.

It would be uncharitable to suppose that if "F. A. B." could have picked out figures showing that municipal trading reduces rates he would have done so.—Yours, &c.,

R. N. McDOUGALL.

Liberty and Property Defence League,
25, Victoria Street, Westminster.

PAYMENTS FOR BANDS.

To the Editor.

SIR,—I notice in your issue of the 22nd inst., under the heading of "Notes and Answers," No. 582, a question has been raised as to the payment of a band of music by an urban district council.

Some time since, as a ratepayer, I appealed to the district auditor against the payment of the sum of £10 for a band to play at the regatta. The local Act of Parliament sanctioned the payment of one band of music, whereas two bands have for a series of years been contributed to out of the rates; I also appealed to him against the payment of the sum of £180 18s. 7d. paid by the Council for advertising the pier.

The auditor allowed the payments to remain in the accounts. Upon appeal to the Local Government Board it was held that the payments were unlawful, and surcharged accordingly.

I am, &c.,

EDWIN SAVERY.

Beaulah Lodge,
Harcourt Avenue,
Southend-on-Sea.
26th December, 1904.

BRADFORD DEPUTY TOWN CLERKSHIP.

FOR the post of deputy town clerk of Bradford, vacant by the appointment of Mr. Wardle to the town clerkship of Bath, there are 38 applicants, which carries with it a salary of £500 a year, rising to £750. The following six candidates were this week selected to come before the Finance Subcommittee:—

Mr. H. Craven, assistant solicitor to the Sheffield Corporation.

Mr. Arthur Holt, deputy town clerk of Blackburn.

Mr. William Hudson, deputy town clerk of Huddersfield.

Mr. Hugh L. Parry, senior assistant solicitor to the West Riding County Council.

Mr. Percy Saunders, assistant solicitor to the Leeds Corporation.

Mr. Charles Sydney Watson, clerk and solicitor to the Walthamstow District Council.

SCHOOL LIBRARIES.

NEW MOVEMENTS IN STEPNEY AND SHOREDITCH.

RECENTLY the Stepney Borough Council placed school-desks in the four free libraries under its control, with the object of providing school children with a comfortable place in which to do their home lessons. The Council had already been running for a couple of years a children's lending department in connection with the free libraries, and on conceiving this fresh idea it placed the reference library also at the disposal of the youthful scholars to assist them in their essay work.

Except during holiday time, on an average twenty East End children may be seen nightly industriously at work in the reference room of the Whitechapel library. They are mostly from the foundation schools in the borough. When it is remembered how over-crowded and unwholesome are the homes of many of these juveniles the practical philanthropy of the council's enterprise is easily apparent. The children are allowed access to the lending library by ticket, on the recommendation of the school heads, and at the end of last month the Whitechapel library had over 2,300 such tickets out. The volumes are, of course, chiefly of the juvenile story-book class, and go out at an average rate of 200 a day. Quite two-thirds of the total borrowers are girls.

An excellent scheme, that has for its object the promotion of a closer relationship between the public libraries and the Council schools of the borough of Shoreditch, was a few days since put before a conference of members of the Library Committee and of school managers and teachers appointed by the Borough Council.

The scheme, which was laid before the conference by Mr. C. W. Plant, the borough librarian, who, however, modestly disclaims any originality for the idea, is a simple one of book distribution among the senior scholars attending day schools. At present there remain in the schools of the borough a species of legacy from the old School Board, consisting of some 4,000 books of fiction especially adapted for elementary readers. At present the children are supplied with these books as required, no trouble being taken to find out the style of book best suited to the child's bent or taste in literature.

M. Plant now suggests that a joint committee should be appointed, composed of school managers and members of the Public Libraries Committees, each school to become a sort of circulating library for the senior scholars attending that school. The present permanent collection of books located in the various schools of the borough would be transferred under the scheme to the Library authority, and housed permanently at the public library. The books would be distributed once each week by some responsible teacher, who would, of course, act as local librarian. The cost of administration would have to be borne by the library authority.

SUNDAY OPENING OF LIBRARIES.

THE Westminster City Council has decided to open one of its public libraries—St. Martin's-lane Library—on Sunday evenings for the next three months as an experiment. This decision was arrived at this week, notwithstanding that at the Council meeting the Libraries Committee submitted a recommendation against the project of Sunday opening, declaring that there had been no demand for it on the part of the public, and that Sunday opening had met with little success in other boroughs. Last week we showed that the experience of other metropolitan boroughs disproved the statement.

THE Local Government Board has just issued a translation by Dr. Theodore Thomson, one of the medical inspectors of the Board, of the complete text of the International Sanitary Convention of Paris, 1903.

TRAMWAY TOPICS.

Rochester New System.

ROCHESTER last week opened the first section of what, when completed, will be a very important link in the rapidly extending Kentish tramways. In an illustrated article on the work of the Maidstone Town Council in our issne of 16th September last, we showed how that ancient city will soon be joined by a huge network of tramways, only a few short links being needed to join it with Chatham, Rochester, Strood, Higham, Gravesend, and even Dartford and Bexley. Eventually it will, no donbt, be possible to get from London all over the country by tramway. Unfortunately for the ratepayers' pockets, the Chatham and District Light Railways Company has got a firm hold of this district, but though its tentacles encircle Rochester, it has not been quite strong enough to squeeze out of the people and of the City Council all pride in civic tramways.

A Compromise.

THE Rochester City Council and this company simultaneonsly applied to Parliament for a Provisional Order a year or two ago. The feeling in favour of municipal trams rnn by the municipality was very strong, but it was felt that the city of Rochester, with its 30,000 inhabitants all told, was not strong enough to stand entirely aloof, and run a system completely independent of the one which ran to its boundary, and it came to terms with the Light Railway Company. Thus one town may be said to suffer for the municipal sins of another. Had the adjacent town of Chatham not allowed itself to be drawn into the toils of the company, all would have been well.

The Company's Position.

THE action of Rochester resulted in the company withdrawing its Bill, but only on the understanding that the tramways were leased to it for 42 years. The entire system when completed will be 4 miles 5 furlongs 3·24 chains of double line, and 3 furlongs 3·16 chains of single line, being the equivalent of 9 miles 5 furlongs 9·64 chains of single track. The total sum authorised for the construction is £67,000, of which the company will pay 6½ per cent., and a similar percentage of the cost of obtaining the Act of Parliament. In addition to this, it will pay £600 a year towards keeping up the superficial paving. It should also be mentioned that the Council is spending £125,000 in making a new street and street widening, the latter being necessitated by the construction of the new tramways.

Tied to the Trust.

TIPTON, Dudley, and Wednesbury are still without their trams, and the South Staffordshire Tramways Company, Limited, which is an off-shoot of the British Electric Traction Company, is threatened with legal proceedings to compel it to carry out its obligations. A conference between the solicitor to the Tipton District Council (Mr. Foster) and Mr. Garcke and Mr. Lycett has been held, and the Tramways Committee this week reports that the company's representatives stated that their difficulties with Dudley and Wednesbury would shortly be settled, and then the work of electrifying the line from Dudley to Wednesbury through Prince's End would be proceeded with. Mr. Foster asked that this statement might be pnt in writing to submit to the Council, but, owing to the illness of Mr. Garcke, this had not yet been done, althongh he had pressed for it by letter. The committeee had written to the Board of Trade requesting it not to grant any further extension of time for the use of steam power on the tramway from Dudley to Wednesbury through Prince's End, and a reply had been received stating that the Tramway Company had no intention of again working the line in question by steam traction.

The Council's Only Course.

OUR readers will remember that an Act was obtained by the company in 1903 authorising it to construct and work additional tramways in the Tipton nrban district. The District Conncil really tied its own hands by entering into an agreement not to exercise its power of compnlsory purchase for a period of 30 years, from 3rd April, 1902. It is to be trusted that the Council will not swerve from its determination to enforce the company to carry out its part of the agreement. A betrayal of the people's interest in such a way should and could have only one result.

Died at His Post.

A BENEFIT smoking-concert, in aid of the fnnd promoted for the widow and children of a Newcastle tramway employe who died recently while on duty, was held on Tuesday night. The smoker was arranged under the auspices of the Newcastle and District Tramway Workers' Union. The Mayor (Alderman J. Baxter Ellis) and other members of the Corporation were present. A substantial amount was added to the £40 already raised.

"No Obstructions."

"'EATING powers' seemed the main thing, 'running powers' completely knocked out," writes a correspondent, on the first annual Christmas dinner of the motormen, conductors, and department men employed by the Tyneside Tramways and Tramways and Tramroads Company. The gathering took place on two nights—one lot of men on Monday and the remainder on Tuesday. "There were no obstructions," he writes, "and, after splendid dinners, the evenings were spent in song."

DICK, KERR & Co., LIMITED,
ABCHURCH YARD, CANNON STREET, LONDON, E.C.
Contractors for Municipal Lighting and Tramway Schemes.
Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.
Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

A. & F. MANUELLE
GRANITE SETTS.
LARGE STOCKS OF ALL SIZES FOR IMMEDIATE DELIVERY.
Also Large Stocks of CURBS, CHANNELS, MACADAM, SIFTINGS, BEDSTONES, TEMPLATES, &c.
Building Work of every description from Architects' and Engineers' Designs.
Chief Office: 57, GRACECHURCH ST., LONDON, E.C.
QUARRIES:—GUERNSEY, ABERDEEN, LEICESTER, IRELAND, NORWAY, & SWEDEN.
Telegraphic Address—"FELDSPAR, LONDON." Telephone Nos. 274, 296 AVENUE.

YŌST

THE TYPEWRITER FOR BEAUTIFUL WORK.

NO RIBBON.
NO COMPLICATIONS.
NO SHIFT-KEY.

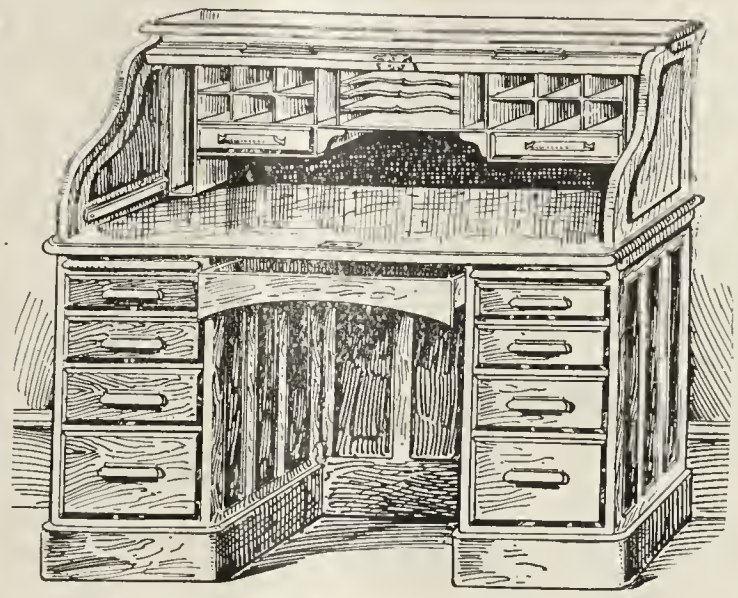
85 CHARACTERS.
LIGHT TOUCH.
NOISELESS.

ASK FOR "MUNICIPAL" BOOKLET, POST FREE.

THE YOST TYPEWRITER CO., LTD.,
50, HOLBORN VIADUCT, LONDON, E.C.

An English Roll-Top Desk

For many years past the American Roll-Top Desk has had a monopoly in this country; but we are now happy to offer a really home-made Desk which for convenience, durability, finish, and price, is not to be beaten. The desk is made of solid oak throughout, fumed, wax polished, and is stocked in four sizes.



PRICES from £5 7 6

Carriage paid to any station in Great Britain.

PARTRIDGE & COOPER, Ltd.,
192, Fleet Street, London, E.C.

Official Advertisements.

EDMONTON URBAN DISTRICT COUNCIL.

FEMALE ASSISTANT INSPECTOR OF NUISANCES.

THE Edmonton Urban District Council invite Applications for the Appointment of a FEMALE ASSISTANT INSPECTOR of NUISANCES and LADY HEALTH VISITOR for their District. The duties will consist of house-to-house visitation, advising mothers as to the care of and feeding of infants, visiting premises where females are employed, making inquiries into infectious cases, accompanying patients to Isolation Hospitals, and such other duties as the Medical Officer and Inspector of Nuisances may require.

Candidates must have had practical experience in the above-mentioned duties, and hold the certificate of the Sanitary Institute of Great Britain.

The salary will be £80 per annum, payable monthly.

Sealed applications, marked on the cover "Lady Inspectorship," enclosing copies of not more than three testimonials of recent date, to be delivered to me, the undersigned, at the Town Hall, Lower Edmonton, not later than 12 o'clock noon on Monday, the 9th day of January, 1905.

By order.
WM. FRANCIS PAYNE,
Clerk of the Council.

Town Hall, Edmonton,
21st December, 1904.

URBAN DISTRICT OF CLECKHEATON.

LEDGER CLERK.

THE Council for the above District invites applications for the appointment of LEDGER CLERK in the Clerk's department, at a salary of £80 per annum, rising by increments of £5 to a maximum of £100.

Candidates should have had experience in a similar capacity in connection with Urban District Council, or borough accounts (either in the office of Clerk to the Council, or that of an Accountant), including those relating to gas, water, and electricity undertakings, and preference will be given to those possessed of the latter qualifications.

Applications on forms to be obtained at my office (accompanied by copies of three recent testimonials, and endorsed "Ledger Clerk"), must reach me not later than 4 o'clock on Saturday, the 14th January, 1905.

JOHN H. LINFIELD,
Clerk to the Council.

Town Hall,
Cleckheaton.
22nd December, 1904.

METROPOLITAN BOROUGH OF DEPTFORD.

APPOINTMENT OF CHIEF LIBRARIAN.

THE Council of the above Borough invite Applications for the appointment of CHIEF LIBRARIAN for the Borough.

The person appointed will be required to devote the whole of his time to the duties of his office, and will not be allowed to undertake or be directly or indirectly concerned in any other business than that of the Council.

The appointment will be terminable by three months' notice on either side, and the salary will be at the rate of £200 per annum.

Preference will be given to applicants having had experience in municipal or other libraries.

Applications, with copies of not more than three recent testimonials, must be made in the handwriting of the candidate on forms to be obtained from the Town Clerk, and must be delivered to him at the Municipal Offices, 20, Tanners Hill, Deptford, not later than 4 o'clock on Tuesday, January 17, 1905; the envelope to be endorsed outside "Chief Librarian."

Canvassing any member of the Council, either directly or indirectly, will disqualify candidates.

(Signed) VIVIAN ORCHARD,
Town Clerk.

Municipal Offices,
20, Tanners Hill.
Deptford, S.E.
29th December, 1904.

MUNICIPAL OFFICES.

A GENTLEMAN wishes to strongly recommend an ex-Articled Clerk (admitted), with exceptional qualifications, for an ASSISTANT CLERKSHIP. Write to Mr. MONTAGUE BROWNE, Northampton.

METROPOLITAN BOROUGH OF FINSBURY.

JARRAH WOOD PAVING.

THE Finsbury Borough Council are prepared to receive TENDERS for PAVING the CARRIAGE-WAY of Richard Street with 3 by 4 by 9 JARRAH WOOD BLOCKS.

The specification can be seen and form of tender obtained at the Borough Surveyor's Office, Finsbury Town Hall, Rosebery Avenue, any day (except Saturday), between 10 a.m. and 4 p.m., on deposit of One Guinea, which will be returned on receipt of a bona-fide tender.

Tenders, endorsed "Wood Paving," to be delivered to me at this office not later than 4 p.m. on Monday, January 9th.

Only those tenders made upon the official form and properly filled up and signed will be entertained.

GEORGE WHITEHEAD PRESTON,
Finsbury Town Hall, Town Clerk.
Rosebery Avenue, E.C.
29th December, 1904.

WALTHAMSTOW URBAN DISTRICT COUNCIL.

ASSISTANT IN ENGINEER'S DEPARTMENT.

THE Council invite Applications for the position of THIRD ASSISTANT in their Engineer's Department, at a salary of £80 per annum. Candidates must have had previous practical experience in engineering work, building construction, and sewer work.

Applications, marked "Engineer's Assistant," in the handwriting of applicants, stating age, experience, and present occupation, accompanied by copies of two recent testimonials, to reach the undersigned not later than 5 p.m. on Friday, the 6th day of January, 1905.

Canvassing will disqualify.

C. SYDNEY WATSON,
Clerk to the Council.

Town Hall, Walthamstow.
28th December, 1904.

SOLICITOR (30), experienced as manager in conveyancing and Common Law, &c., desires Post in municipal office. Expert shorthand writer. Three years in town clerk's office. Excellent references. "Trois," MUNICIPAL JOURNAL, 12, Salisbury Square, Fleet Street, E.C.

Appointments Vacant.

Latest date for applications in parentheses.

Caretaker of School. £1 per week. M. L. Dixon, 8, Hythe Street, Dartford. (January 11.)

Clerkships—Fourth Class. Examinations on January 16, 17, and 30th. Applications by 11th and 16th January respectively. Clerk of London County Council. Spring Gardens, S.W. See advt. in No. 619.

Clerk. £110. G. Speed, J.P., Chairman of District Council, 6, Lindsey Court, Horncastle. (January 5.)

Clerk for two months. "Clerk." Town Hall, Cleckheaton. (January 10.) See advt. in this issue.

Clerk to District Council. A. J. Arthy, Clerk to Urban District Council, Leigh-on-Sea. (January 14.)

Clerk of Works. E. Knightley, Clerk of District Council, Newhaven. (January 4, 1905.)

Clerk of Works. £3 10s. per week. H. Ward, Council House, Handsworth, near Birmingham. (January 5.)

Clerk of Works. £4 4s. per week. Stephen Woodbridge, Clerk to Urban District Council, Brentford. (January 3.) See advt. in No. 621.

Clerk of Works. T. E. Pearson, Clerk to District Council, Town Hall, Settle. (January 2.)

Correspondence and General Clerk. W. A. Williams, Town Clerk, Town Hall, Hackney. (January 3.)

Draughtsman (Temporary Junior). Valuer, London County Council, 9, Spring Gardens, S.W. (January 6.)

Electrical—Premium Pupils. Premium £52 10s. O. F. Francis, Borough Electricity Works, Victoria Road, Kirkcaldy.

Electrical Engineer to Corporation. A. Challenor, Town Clerk, Town Hall, Hanley. (January 10.)

Female Attendant. £26. J. Hutton Haylor, Guardians' Offices, 329, High Road, Kilburn, N.W. (January 3, 1905.) See advt. in this issue.

Female Inspector of Nuisances. £80. W. F. Payne, Clerk of District Council, Town Hall, Edmonton. (January 9.)

Foster-Mother. £25. Geo. E. Spencer, Clerk to Guardians, Keighley, Yorks. (January 3.)

Gasworks Superintendent. £300. Hanbury Thomas. Sheffield United Gas Company, Commercial Street. Sheffield. (January 5.)

Headmaster. £500. J. F. Moss, Education Office, Sheffield. (January 18.)

Inspector of Nuisances (Female Assistant). £80. Wm. F. Payne, Clerk of the Council, Town Hall, Edmonton, N. (January 9, 1905.) See advt. in this issue.

Inspectors of Roads. 50s. per week. W. F. Dewey, Town Clerk, Town Hall, Upper Street, Islington, N. (January 4.)

Instructors and Assistant Instructors in Manual Training. £100 and £80 respectively. Clerk of London County Council, Education Offices, Victoria Embankment, London, W.C. (January 4.)

Inspector of Nuisances. £140. E. Waugh, Council Offices, Hayward's Heath. January 12.)

Ledger Clerk. £80. J. H. Linfield, Clerk to District Council, Town Hall, Cleckheaton. (January 14.)

Male Nurse. E. J Mott, Guardians' Offices, Fulham Palace Road, W. (January 5.)

Master and Matron. £125 and £50. J. Appleton, Clerk to Guardians, 57, Broad Street, Bloomsbury, W.C. (January 7.)

Nurse. £20. R. H. Roberts, Clerk to Guardians, Union Offices, Ruthin. (January 7.)

Nurse. £25. J. C. Haywood, Sessions House, Dartford. (January 9.)

Nurse (Assistant). £20. F. Gregson, Clerk to Rochford Union, Southend-on-Sea. (January 2.)

Nurse (Charge). Fred. W. Mee, Union Offices, Hunslet, Leeds. (January 4.)

Nurse (Workhouse). £30. J. H. Thomas, Clerk to Guardians, Carnarvon. (January 4.)

Relieving Officer, Collector, &c. £120 and 5 per cent. commission. C. Taylor, Clerk to Guardians, Minster, near Ramsgate. (January 5.)

Relieving Officer (General Assistant). £80. J. Hutton Haylor, Guardians' Offices, 329, High Road, Kilburn, N.W. (January 3, 1905.) See advt. in this issue.

Sanitary Inspector. £120. J. A. Johnson, Town Clerk, Town Hall, Walworth Road, S.E. (January 2, 1905.) See advt. in No. 620.

Sanitary Inspector (Temporary). £3 per week. G. W. Preston, Town Clerk, Town Hall, Rosebery Avenue. (January 5.) See advt. in this issue.

Secretary to Hospital. £200, and commission. The Committee, Essex and Colchester General Hospital, Colchester. (January 7.)

Shorthand Clerk. £71. W. F. Dewey, Town Clerk, Town Hall, Upper Street, Islington, N. (January 5, 1905.) See advt. in No. 621.

Superintendent and Matron (Man and Wife). £1 15s. per week. D. S. Davies, M.D., Medical Officer of Health, 40, Prince Street, Bristol. See advt. in this issue.

Sub-Librarian. £100. E. Wright, Town Clerk, Lewisham Town Hall, Catford, S.E. (January 4.) See advt. in No. 620.

Surveyor, &c. £150. D. S. Watson. Clerk to District Council, Burnham, Somerset. (January 14.)

Town Clerk. £700. A Steele Sheldon, Town Clerk, Town Hall, Burnley. (January 7.) See advt. in this issue.

Tramways — General Manager. £700. Hill Motum, Town Clerk, Town Hall, Newcastle-on-Tyne. (January 7.) See advt. in No. 621.

Treasurer—Deputy. £200. T. Hudson, Borough Treasurer, Town Hall, West Bromwich. (January 10.)

Ward Sisters. £32. E. J. Mott, Clerk to Guardians, Fulham Palace Road, W. (January 5.)

Yardsman. £30. B. Burfield, Parochial Offices, Princes Street, Brighton. (January 11.)

Tenders Wanted.

Latest date for sending in tenders in parentheses.

Ambulance. K. Comerford, Clerk to Guardians, Kilkenny, (January 12.)

Bedsteads. G. M. Howard, Poor Law Office, Nottingham. (January 4.)

Bookbinding. Town Clerk, Town Hall, Peckham Road, S.E. (January 16.)

Boots. J. L. Wheatley, Town Clerk, Town Hall, Cardiff. (January 2.)

Boilers—Steam, &c. Sir Samuel Black, Town Clerk, Belfast. (January 12.)

Building Alterations and Additions. T. W Liddiard, Education Offices, High Street, Walthamstow. (January 9.)

Building Works—Engineers' Cottages. T. Duncombe Mann, Asylums Board Offices, Embankment, London, E.C. (January 11.)

Chimney Shaft. R. M. Prescott, Town Clerk, Town Hall, Fulham. (January 18.) See advt. in No. 621.

Clothing. H. W. Cook, Public Offices, Egremont, Cheshire. (January 7.)

Clothing. Town Clerk, Municipal Buildings, Greenock. (January 6.)

Clothing—Police. Chairman of the Watch Committee, Police Offices, Stockport. January 5.)

Clothing—Uniform. R. E. Fox, Town Clerk, Leeds. (January 2.)

Concrete Flooring, Engine Sheds, &c., at Sewage Works. E. Crowne, 712, High Road, Tottenham. (January 3.)

Disinfectants. H. Monckton, Town Clerk, Maidstone. (January 2.)

Disinfectants. Sam Adams, Union Office, Bishop Auckland. (January 7.)

Electrical Fire Alarms. T. Duncombe Mann, Asylums Board, Embankment, London, E.C. (January 24.)

Electric Mains. B. Dufton, Town Clerk, Municipal Offices, Pudsey. (January 20.)

Electric Light Installation. Sir Samuel Black, Town Clerk, Belfast. (January 12.)

Electricity Supply (Port Elizabeth, South Africa). Davis and Soper, 54, St. Mary Axe, London, E.C. (January 16.)

Electric Tramways (Shanghai). Messrs. Pook and Co., 63, Leadenhall Street, E.C. (March 31, 1905.)

Electrical Tramway Equipment. C. H. Fry, District Council Office, Erith, Kent. (January 9.)

Fencing, Wrought-Iron. Hatten and Asplin, Council Offices, High Street, Grays. (January 11.)

Fire Brigade Station — Erection and Completion. F. D. Askey, Town Clerk, 99, Southwood Lane, Highgate, N. (January 2.)

Fireclay Goods. Chairman, Gas Committee, Town Hall, Manchester. (January 6.)

Footbridge. C. W. Tagg, Town Clerk, Town Hall, Camberwell. (January 23.)

Granite. H. A. Winser, Municipal Offices, Kingston-on-Thames. (January 11.)

Granite Kerb, &c. H. Talbot, Town Clerk, Town Hall, Brighton. (January 6.)

Gymnastic Appliances. C. H. F. Barrett, Town Clerk, Town Hall, Pancras Road, N.W. (January 2.) See advt. in No. 621.

Heating of Pavilions, &c., at Hospital. Sir Samuel Black, Town Clerk, Belfast. (January 12.)

Heating, Ventilating, and Hot Water Plant. R. W. Partridge, Asylum Committee Office, 6, Waterloo Place, S.W. (January 23.)

Jarrah or Karri Paving Blocks. J. W. Cockrill, Borough Surveyor. Town Hall, Great Yarmouth. (January 4.) See advt. in No. 621.

Libraries Competitive Designs invited. Chief Librarian, Public Library, Royal Avenue, Belfast. (January 17.)

Loan. W. Pruddah, Town Hall Chambers, Hexham. (January 7.) See advt. in this issue.

Loan of £2,150. J. L. Hawkesworth, Council Office, Bolton-upon-Dearne. (January 2.)

Loans of £50 and Upwards. Haswell Brown, Borough Accountant, Town Hall, Sunderland. See advt. in this issue.

Mackintoshes, &c. J. Haslam, Clerk to Water Board, Bank Street, Bury. (January 3.)

Oilskin Suits. J. Colenso Jones, Council Offices, Pontypridd. (January 2.)

Pier Repairs. R. M. Barr, Town Hall, Ventnor. (January 6.)

Printing Catalogue. Town Clerk, Town Hall, Barrow-in-Furness. (January 9.)

Pumping Main. E. Crowne, 712, High Road, Tottenham. (January 3.)

Quay Wall. H. S. Dickinson, Clerk to Commissioners, Fish Street, Poole. (January 14.)

Reservoir, &c. F. Horner, Council Office, East Street, Newton Abbott. (January 10.)

Retubing Condensers. M. Kirkley, Town Clerk, Town Hall, Ripon. (January 18.)

Road Materials. A. W. J. Russell, Town Clerk, Town Hall, Paddington, W. (January 2.)

Road Works. T. Duncombe Mann, Asylums Board Offices, Embankment, London, E.C. (January 11.)

School Building. R. H. S. Butterworth, Council Offices, Wimbledon. (January 11.)

Sewage Disposal Works. R. W. Evans, Clerk to Sowerby Bridge District Council, Commercial Road Chambers, Halifax. (January 28.)

Sewerage. E. W. Adams, Union Offices, Evesham. (January 14.)

Sewerage Works. J. E. Alcock, Clerk to Urban District Council, Mansfield, Notts. (January 2.)

Sewerage Works. P. Cunningham. Clerk to Rathdown District Council, Loughlinstown, Ireland. (January 11.)

Sewerage Works. J. E. Rodber, 30, Kingston, Yeovil. (January 21.)

Sewerage Works. J. H. Williams, Town Clerk, Ludlow. (January 21.)

Sewage Disposal Works. A. J. H. Ward, 42, Church Street, Harwich. (January 24.)

Sludge Main. W. H. Talbot, Town Clerk, Town Hall, Manchester. (January 3.)

Steamers. Two Twin-Screw Saloon. H. W. Cook, Public Offices, Egremont, Cheshire. (January 16.)

Steel Rails. R. Hyde, Town Clerk, Stockport. (January 9.)

Stone—Hartshill. N. H. Dawson. Borough Surveyor, Town Hall, Banbury. (January 14.)

Street Improvements.—R. Brown, Public Offices, Southall. (January 10.)

Street Works. J. Strachan, Clerk to District Council, Harrow-on-the-Hill. (January 7.)

Underground Convenience. H. G. Hills, Town Clerk, Council House, Wandsworth, S.W. (January 9.)

Water Main—Extending, &c. E. Harris, Council Offices, Alexandra Road, Swansa. (January 11.)

Water Supply Contract—Engine House, Boiler House, and Chimney Stack. J. Morton, Town Clerk, Town Hall, Kidderminster. (January 20.)

Water Supply Works. H. Bevir, Clerk to District Council, Wootton Bassett. (January 3.)

Waterworks. E. C. Hett, 2, Trafford Street, Scunthorpe. (January 6.)

Waterworks Extension. E. R. Owen, Union Office, Llanrwst, N. Wales. (January 12.)

Waterworks Extensions. Town Clerk, Chippenham, Wilts. (January 10.)

Water Van. G. T. Lewis, Town Hall Buildings, Clacton-on-Sea. (January 11.)

Works and Materials. Henry George Hills, Town Clerk, Council House, Wandsworth. (January 9.) See advt. in No. 621.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS.
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Miltou House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London, N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

ROAD SCAVENGER.
F. COWLEY, C.E.,
Launceston, Cornwall.

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

*** *For conditions of insertion in this column address The Manager,* MUNICIPAL JOURNAL, *12, Salisbury Square.*

BIRKBECK BANK
ESTABLISHED 1851.

2½ per cent. INTEREST
allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST
allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.
STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary,
Southampton Buildings, High Holborn, W.C.

TEMPERANCE PERMANENT
BUILDING SOCIETY,
4, Ludgate Hill, London, E.C.

A Safe Four Per Cent. Investment.
Free from fluctuations, and without deductiou of Iucome Tax.

CAPITAL AVAILABLE WITHOUT DEPRECIATION
without expense and at short notice when required.

DEPOSITS RECEIVED AT THREE PER CENT.

LARGEST RESERVE
of any Buildiug Society in the Uuited Kingdom.
EDWARD WOOD, Manager.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment.
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

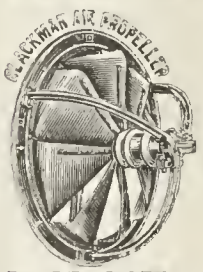
BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

BONDS are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary SHIRLEY FUSSELL.

BLACKMAN


ELECTRIC FANS.

GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION
IS FAR IN EXCESS
OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL, 12, SALISBURY SQUARE, LONDON.

WILLIAMSON
ASHTON-UNDER-LYNE,
Telephone 320.

FOR
TICKETS
AND
PUNCHES
FOR
TRAMWAYS, &c.

TICKET NIPPERS.

TICKETS, DATING MACHINES, AND ISSUING CASES
FOR RAILWAYS, BATHS, &c.

IN PREPARATION. Ninth Year of Issue.

THE *Demy 8vo, handsomely bound in cloth, gilt, price 3/6; post free, 3/11.*

MUNICIPAL 1905 YEAR BOOK

1905

ENLARGED AND OFFICIALLY REVISED.

The only Municipal Work of Reference for all the Towns of the United Kingdom.

A Guide to the Municipal Affairs of the United Kingdom.

A Directory of Officials & Members of Public Bodies.

An Encyclopædia of Civic Life.

Full of Valuable Information bearing on the Municipal Trading Controversy.

PRESS OPINIONS of the 1904 EDITION.

"There could be no more useful book of the kind."—*Westminster Gazette.*

"A very useful publication. . . . Every topic connected with local government is carefully and adequately dealt with."—*Daily Telegraph.*

"Has always been invaluable, but in its new form its usefulness is increased tenfold."—*Morning Leader.*

"The cheapest 500 pages of municipal facts and figures in the world is the 'Municipal Year Book for 1904.'"—*Daily Mail.*

"Indispensable to everybody concerned in municipal work."—*Truth.*

PRINCIPAL SECTIONS:

1. London Municipal Government. 2. Municipal Government in England and Wales.
3. Municipal Government in Scotland. 4. Local Government in Ireland.
5. Water Supply. 6. Gas Supply. 7. Tramways. 8. Electricity Supply.
9. Housing of the Working Classes. 10. Markets and Slaughterhouses.
11. Telephones. 12. Baths and Washhouses. 13. Education.
14. Public Libraries. 15. Cemeteries. 16. Refuse and Sewage Disposal.
17. Local Taxation Returns. 18. Municipal Trading (with tables showing debt, rates, &c.).

Orders now received for the New Issue. Address:—

THE PUBLISHER, 12, SALISBURY SQUARE, LONDON, E.C.

Printed and Published by EDWARD LLOYD, Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE MUNICIPAL JOURNAL

No. 623.—Vol. XIV. FRIDAY, JAN. 6, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. One Penny.

Official Advertisements.

CITY OF NOTTINGHAM WATER DEPARTMENT.

NEW RESERVOIR.

THE Water Committee are desirous of receiving TENDERS for the CONSTRUCTION of a RESERVOIR at Wilford Hill.

The drawings and specification may be seen at the Water Offices, St. Peter's Square, Nottingham, on application to Mr. F. W. Davies, the Water Engineer.

Copies of the quantities and forms of tender can be obtained on payment of £5 for each copy, which will be returned on receipt of a bona-fide tender.

Tenders, endorsed "Tender for Reservoir," to be addressed to me at the Guildhall, Nottingham, and delivered not later than noon on Monday, the 13th day of February next.

The Committee do not bind themselves to accept the lowest or any tender.

By Order.
SAMUEL G. JOHNSON,
Town Clerk.

Guildhall, Nottingham.
30th December, 1904.

RHONDDA URBAN DISTRICT COUNCIL.

TENDERS FOR LOANS.

THE above Council invite TENDERS for LOANS (under the sanctions of the Local Government Board), amounting to £22,338 for 30 years, for the erection of two Elementary Schools, on the security of the fund out of which the expenses of the said Council under the Education Act, 1902, are payable, the whole to be repaid by equal half-yearly instalments of principal with interest on the balance.

Tenders (endorsed "Tenders for Loans)," stating rate of interest and an inclusive sum to defray all legal and other costs, charges, and expenses, to be sent in not later than the 12th instant.

The Council do not bind themselves to accept the lowest or any tender.

By order.
WALTER P. NICHOLAS,
Clerk and Solicitor to the Council.

Public Offices,
Pentre, Rhondda.
2nd January, 1905.

COUNTY BOROUGH OF SUNDERLAND

THE Corporation are prepared to receive LOANS of £50 and upwards on security of the Rates of the Borough, at six months' notice or for a fixed period.

For further particulars apply to Haswell Brown, Borough Accountant, Town Hall.

Sunderland.
13th December, 1904.

PROMOTION impossible without good Penmanship. Rapid tuition. Particulars for stamp. N. Broadbent (Prizeman and Medallist), Alston's College, Burnley.

Official Advertisements.

BOROUGH OF SWINDON.

ELECTRICITY AND TRAMWAYS DEPARTMENT.

LANCASHIRE BOILER, &c.

THE Corporation of Swindon invite TENDERS for the SUPPLY and ERECTION of one 30ft. 0in. by 8ft. 0in. LANCASHIRE BOILER with down take superheater, steam, exhaust, and feed piping, &c.

Copies of the general conditions, specification, and forms of tender may be obtained on application to the Engineer and Manager, Mr. J. G. Griffin, A.M.I.E.E., Electricity Works, Swindon, on payment of a deposit of one guinea for each copy, which will be returned on receipt of a bona-fide tender.

Extra copies may be obtained at 5s. each.

The firm whose tender is accepted will be required to find two responsible sureties, and to enter into a contract to be prepared by, and to contain such clauses as the Town Clerk may deem necessary.

Tenders on the prescribed form, and accompanied by the specification and general conditions intact, and endorsed "Tender for Lancashire Boiler," to be delivered to the undersigned before 10 a.m. on Tuesday, January 24th next.

The Corporation do not bind themselves to accept the lowest or any tender.

By order.
ROBT. HILTON,
Town Clerk.

Town Hall, Swindon.
23rd December, 1904.

METROPOLITAN WATER BOARD.

TO CLOTHIERS AND OTHERS.

THE Metropolitan Water Board are desirous of receiving TENDERS for about 98 OVERCOATS. Particulars may be obtained at the Chief Engineer's Office, Savoy Court, Strand, W.C.

Sealed tenders, endorsed "Overcoats," and addressed to the undersigned, must be delivered at the Office of the Board, Savoy Court, Strand, W.C., not later than 10 a.m. on Monday, 16th January, 1905.

The Board do not bind themselves to accept the lowest or any tender.

A. B. PILLING,
Clerk of the Board,

Savoy Court, W.C.
2nd January, 1905.

£25 (TWENTY-FIVE POUNDS) BONUS.

GENTLEMAN (27) desires permanent Berth in a Municipal or Urban District Council Office (seaside or country preferred), having many years' experience in all matters relating to Finance. Able to arrange loans. Undeniable testimonials. Willing to submit bona-fides. Reply, in strict confidence, to A. B. C., care of Municipal Journal, 12, Salisbury Square, Fleet Street, London, E.C.

Official Advertisements.

COUNTY BOROUGH OF WEST BROMWICH.

TREASURER'S DEPARTMENT.

THE Finance Committee of the Corporation invite Applications for the position of DEPUTY TREASURER.

Candidates must be thoroughly experienced in municipal accounts and finances, including the accounts of a gas undertaking, or other trading departments of a coporation, and must be skilled accountants. They must also have had experience in the control of clerks, and be competent to take charge of the office when required.

Preference will be given to candidates who have passed the examination of the Incorporated Treasurers' and Accountants' Institute, or other equivalent examinations.

Salary £200 per annum.

Further particulars may be obtained on application.

Applications, stating age and setting out the candidates' experience and qualifications, and to be accompanied with copies of three recent testimonials, to be sent to me, suitably endorsed, not later than 10th January next.

THOMAS HUDSON,
Borough Treasurer and Registrar of Stock.

Town Hall,
West Bromwich,
21st December, 1904.

THE CORPORATION OF THE CITY OF CAPETOWN.

GRANITE SETTS.

TENDERS (to be accompanied by samples) are invited for the SUPPLY, C.I.F., Capetown Docks, of about 6,000 Tons of GRANITE SETTS. The specification and form of tender can be obtained at the offices of the undersigned. The Council do not bind themselves to accept the lowest or any tender, and no tender will be entertained unless submitted on the official form.

DAVIS & SOPER,
Agents of the Corporation of the City of Capetown.

54, St. Mary Axe,
London, E.C.
3rd January, 1905.

TENDERS FOR CONTRACTS, &c.—Official advertisements respecting works, supplies, &c., should always be sent for insertion in the MUNICIPAL JOURNAL, as its columns are constantly referred to by Contractors to Public Bodies, and the paper is generally recognised as the best medium for the purpose, its extensive circulation amongst those interested in public tenders ensuring the widespread publicity desired by County Councils, Corporations, District Councils, Boards of Guardians, &c. when inviting tenders for contracts of any kind.

In replying to Official Advertisements, please mention the "Municipal Journal.

WILL JENKINS

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutelv PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

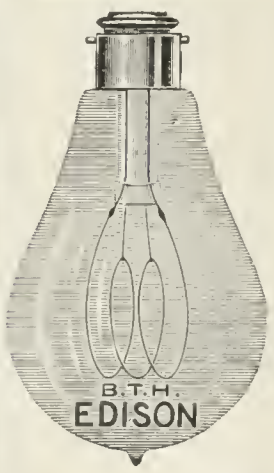
"Cadbury's is the standard of highest purity."

TICKET PUNCHES.

As adopted by Corporations, Tramways, 'Buses, Steamboats, &c.

ENQUIRIES SOLICITED.

THE TICKET PUNCH & REGISTER CO., Ltd.,
46, Queen Victoria Street, London, E.C.



MADE IN RUGBY.

TRUISM No. 2.

"Hiatus Valdi Deflendus."
i.e.—A deficiency much to be regretted.

A deficiency much to be regretted in many Electric Lamps is that they are rated according to the Hefner Standard, which is only 88 per cent. of the English Parliamentary Standard by which the

B.T.H. EDISON
ELECTRIC LAMP

is rated. Thus every 16 candle-power B.T.H. Edison Lamp gives 2 c.p. more Light than those rated at 16 c.p. by the Hefner Standard.

Obtainable from all principal Electricians, Ironmongers, Stores, &c.

Manufactured by the B.T.H. CO., Ltd., RUGBY.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

IN PREPARATION,

The MUNICIPAL YEAR BOOK, 1905.

OFFICIALLY REVISED—IMPROVED AND EXTENDED.

INVALUABLE TO COUNCILLORS & OFFICIALS.

EDWARD LLOYD, Limited, 12, SALISBURY SQUARE, LONDON, E.C.

BAKER'S
PATENT REFUSE DESTRUCTORS

Important New Features In Sanitation. Complete Destruction of Gases.
Highest Efficiency for Heat and Power.
Large Storage Capacity. Mechanical Conveyance and Cooling of Clinker.
Abolition of Nuisance. Special Treatment of Dead Animals and Offal.
Labour and Cost of Working Reduced to a Minimum.

JOSEPH BAKER and SONS, Limited,
ENGINEERS,
WILLESDEN JUNCTION, LONDON, N.W.

REGISTERED OFFICES—
58, CITY ROAD, LONDON, E.C.

BRANCHES { 345, Flinders Lane, Melbourne, Australia.
92, Alfred Street, Brantford, Canada.

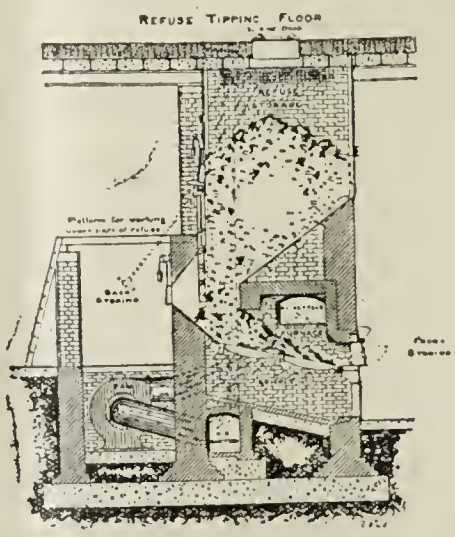


ILLUSTRATION of BAKER'S PATENT DESTRUCTOR.
With Enlarged Storage Drying Hopper.

THE MUNICIPAL JOURNAL
ESTABLISHED AS "LONDON" THIRTEENTH YEAR OF ISSUE.

No. 623—Vol. XIV. JANUARY 6, 1905.

ECONOMIC BRICK-MAKING.

An Interesting Scheme of Combined Electricity Works, Destructor Works, and Brick-Making House Has Been Carried Out by the Woolwich Borough Council, and Is Now Being Extended. How the Bricks Are Made and Used. Novel Points in the Construction of the Works.

THE Woolwich Borough Council possesses a unique building at Plumstead, consisting of combined generating station, dust destructor, and brick and flag house.

The initial stages of the undertaking date back to 1899, when the late Plumstead Vestry was granted a Provisional Order for the supply of electricity in the district. Some years previously about 50 acres of land on the Plumstead Marsh, adjoining the South-Eastern Railway, had been purchased for the use of a dust shoot, but owing to the rapid erection of dwelling-houses in the neighbourhood, it had only been possible to utilise the northern portion of the ground for this purpose. The remaining portion of the land makes an admirable site for a building of this kind, being conveniently situated both as to the council's private road and also as to the railway.

VIEW SHOWING THE DESTRUCTOR AND ELECTRICITY STATION.

ANOTHER VIEW.

The buildings were designed by the engineer and surveyor (Mr. Frank Sumner, M.Inst.C.E.), and the tender of Messrs. James Smith and Sons, Limited, of Norwood, was accepted for their erection at a sum of £40,570. The works were commenced in June, 1901, and were not completed until the end of 1902, owing to various unavoidable causes, among which the most serious was the amount of water met with in the foundations, which necessitated pumping night and day. The site is a low-lying one, the walls being carried on concrete.

The whole of the exterior of the buildings is faced with Ibstock bricks—with the exception of the administrative block, for which red rubbers were used—and is relieved with Portland stone dressings. Bangor and Broseley tiles are used for the roofing.

A visit to the works is well worth making. Attention is first drawn to the brick and flag house, which when it was started some eighteen months ago was the first in the country. The clinker from the destructor furnaces, which constitutes about 30 per cent. of the refuse burnt, is utilised for the manufacture of bricks, tiles, and paving slabs. The machinery for this purpose comprises a grinding mill 9ft. diameter, with perforated bottom, in which the clinker, after the iron and other metal has been taken out, is ground dry. It is then conveyed to a mixing machine, where lime or cement is added according to whether the material is for bricks or paving slabs; the proportion of lime or cement is regulated by a pair of friction cones. After this operation the dry mixture passes to another mixing machine, where a regulated quantity of water is added, and the material converted into a semi-plastic state, after which it is again ground in a pan 7ft. diameter, and passed either to the brick press or the slab press. All the carrying is done by elevators; the material after being shovelled into the 9ft. pan is not handled again until it comes from the press as a finished brick or from the elevator ready to be placed in the moulds and pressed into paving slabs. Each brick is subjected to a pressure of 100 to 120 tons. From the press the bricks are taken on trolleys into the hardening chambers, where they remain under a pressure of steam varying from 50 to 100lb. per square inch for a period of twelve hours, after which they are ready for use. The clinker material for slab making is placed in moulds with a layer of granite chippings laid on one surface. It is then placed in a hydraulic press which applies a force of 500 tons to each slab. The machinery is driven by a 70 horse power motor, totally enclosed. Part of the space under the roadway leading to the tipping platform has been utilised for a disinfecting station. This is divided into two rooms, with provision for three disinfecting chambers.

This brick-making is a source of considerable economy to the Borough Council. The bricks are being used in all manner of

work, except face work. Several hundred thousand have been made and stored in preparation for the erection of public baths and wash-houses, which the Council contemplated. A two-inch brick can also be made, and a great number of this size has been used by the borough electrical engineer (Mr. J. B. Mitchell, M.Inst.E.E.) for covering several miles of trough in which light cables are laid. Other kinds of bricks, including the round-ended bricks, can be turned out. A representative of the *Municipal Journal* was much pleased with the appearance and evident hardness of these bricks, and learnt that they can be made much cheaper than ordinary stocks. The Electricity Department sells the Brickmaking Department current, and also buys tiles, &c., as a set-off.

The Refuse Destructor.

The main building, the destructor house, shown in our illustration, is 132ft. long, 81ft. in width, and 32ft. in height from floor to wall plates. The roof is divided into two spans, supported in the centre of the building by four 12-inch by 6-inch stanchions carrying a lattice girder. In each span, running the whole length of the building, is a louvred lantern 10ft. 6in. wide. The type of destructor installed is Meldrum's "Simplex." The building is designed for four units. Each unit is fitted with a Babcock and Wilcox water-tube boiler and patent steam superheaters, each boiler having 81 tubes, 4in. external diameter and 18ft. long, built up in nine sections. Each destructor unit has four grates, the furnaces being 22ft. long by 6ft. wide, lined with 9in. of firebrick, commencing two courses below the grate level: the front walls are of firebrick 14in. thick, with an air space of 3in. between them and the outer lining, which is of salt-glazed bricks. The firebar level is 3ft. above the floor level, the crown of the arches of the furnaces being 4½ft. above the firebars. In the back wall of the furnace of each unit are four openings 2ft. 9in. long by 1ft. 9in. high, through which the hot gases pass into the combustion chamber. The ashpit of each unit is divided into four compartments, fitted with patent steam jet blowers connected with the boilers. From the combustion chambers the gases pass into the generating chambers containing the boiler tubes. Each unit is also fitted with two extra grates at the rear of the combustion chambers for coal consumption only, in case, from any cause, the supply of refuse should be insufficient. At the rear of the generating chambers are the regenerators, consisting in each unit of 195 tubes, each 5ft. long, 3in. external diameter, around which the incoming air circulates, and after being heated by the hot gases in the tubes passes along a conduit to the furnaces through the uptakes in the ashpits. The pressure of the blowers in the latter can be regulated up to an equivalent of 3in. of water. From the regenerators the hot gases pass into one or other of the main flues, which are each 6ft. 6in. high by 5ft. 4½in. wide, the passage of the gases being controlled by vertical dampers. These flues converge into a larger one, 10ft. high and 8ft. wide, leading to the shaft. All parts of the destructors and flues to which access is necessary are fitted with manholes.

Judging by Results.

Some tests, interesting to students of modern refuse disposal methods and their relative efficiency, have been carried out at these works. The following is the result of a 25 hours' efficiency test. Three grates only were in use, and the total grate area was 75 square feet. The quantity of refuse received was 67·75 tons (151,760lb.), the weight of the refuse consumed was 66·8 tons (149,787lb.), and the weight of refuse burned per hour per square foot of grate was 79lb. The weight of the clinker resulting therefrom was 43,500, the weight of the ash 4,200, and the weight of tins 1,973 lb. The total units generated were 3,330, but this figure is no criterion of the amount which could have been generated had there been a sufficient load. The maximum temperature of the forced draught air conduit was 500 degrees Fahr. The actual weight of water evaporated was 220,187lb., while the actual weight evaporated per lb. of refuse burned equalled 1·47lb. The equivalent weight of water evaporated from and at 212 degrees Fahr. per lb. of refuse burned was 1·64 lb. The total equivalent evaporative duty on the economiser from and at 212 degrees Fahr. was 20,173lb., or 798·9lb. per hour, while the total equivalent evaporative duty on the superheater from and at 212 degrees Fahr. was 8,107 3lb., or 321lb. per hour. The total equivalent evaporative duty on the boiler from and at 212 degrees Fahr. was 221,440·6lb., or 8,770lb. per hour; and the total duty on the boiler, economiser, and superheater from and at 212 degrees Fahr. equalled 249,718lb., or 9,889·8lb. per hour. The ecouomiser duty was 8·07 per cent. of the total, the boiler 88·67 per cent., and the superheater 3·26 per cent. A more recent test has shown an evaporation of water from and at 212 degrees Fahr. of over 1·9lb. per lb. of refuse.

Another Novel Feature.

It will be seen from our illustration that the chimney shaft is remarkably low for a building of this kind. This reduction of height was necessitated not only by the nature of the ground carrying the foundations, but also by the fact that very considerable concussion takes place over the area, produced by the testing of heavy guns on the Government ground in the immediate vicinity. So low a shaft is a novel feature in conjunction with refuse destructors, and the result is a matter of importance to local authorities, because the cost of a shaft, as usually constructed, is an expensive item in the capital outlay of similar undertakings. The height is 80ft. instead of the usual 150ft.

The boiler-house provides accommodation for four boilers. The engines are of Willans and Robinson's central valve high-speed triple-expansion type, all direct coupled to British Westinghouse compound-wound generators. The switchboard was fitted by Kelvin and Jas. White, of Glasgow. In the basement under are placed the coudensers, grease separators, air and circulating pumps, and also the pumps for drawing water from the well. All the steam pipe work was carried out by Messrs. Aiton and Co. Messrs. Pilkington Bros., Ltd., St. Helens, Lancs., have supplied their patent wired rolled glass for roofs, &c.

Enlarging the Plant.

There are now being installed, under the supervision of the electrical engineer, two 500-kilowatt high-tension alternating generators, made by the General Electric Company, with two 735-brake horse-power triple-expansion engines, and condensing plant complete by Messrs. Willans and Robson, Limited. This additional machinery is to provide the high-tension three-phase alternating current required for a scheme of extensions of considerable magnitude, now in course of construction. The switchboard required for the high-tension system will be supplied by Messrs. Kelvin and James White, Limited. The foundations and other works in connection with the new machinery and switchboard are now being executed under the direction of the borough engineer.

The administrative block immediately adjoins the engine-house, and contains a handsome suite of offices, comprising, on the ground floor, inquiry office, two clerks' offices, assistant engineer's room (the latter commanding a view of the engine-house), and lavatories. On the floor above is the chief engineer's room and a commodious drawing office. In the basement is a strong room, distributing engineer's office, meter and testing room, and store room. The caretaker's quarters are in the upper part of the building, separated from the offices by an iron door. Amongst other buildings are separate messrooms, bathrooms, &c., for the workmen in the destructor house and engine-house.

The electrical portion of the undertaking was designed by the Borough Electrical Engineer (Mr. J. B. Mitchell, M.I.E.E.)

CREWE'S TEMPTATION.

CREWE is just now in the critical position of having to decide its future in regard to tramways. Of course the companies are struggling to insert their feet, and one of them had even obtained an Order from the Light Railway Commissioners to construct a tramway in the borough, but on account of certain restrictions the Order was allowed to lapse. The last municipal scheme was defeated by a poll of the ratepayers. The Corporation has since been inquiring as to the practicability of motor-'buses. A report from the Hastings Omnibus Company shows that the working cost of a motor-'bus was 11½d. per mile, the earning capacity 1s. 2d. per mile, and that two 'buses ran 55,000 miles in twelve months. This week the Council resolved by twelve votes to four to inform Dr. Rhodes, of Manchester, who asked the authority to support a private electric tramway company, and Mr. S. Jackson, who offered to promote a service of steam motor omnibuses, that the Council could not support their schemes for the borough.

MUNICIPAL ADVERTISING.

AMERICAN methods of municipal advertising, outlined in these pages a week or two ago, may stimulate the zeal of English municipalities. This week the Corporation of Scarborough has been asked by the town advertising committee and traders' association to increase the mayor's salary from £500 to £750, so that more money might be available for advertising the town. It was pointed out that advertising last year resulted in a greater number of ordinary passengers visiting Scarborough than in any previous year, and in a gratifying expansion of traffic from London. It was also shown that the increase would not involve a charge upon the rates, as the receipts from the stalls and stands on the sands last year amounted to £800.

DEATH OF THE TOWN CLERK OF BOLTON.

THE Town Clerk of Bolton (Mr. Robert Gudgeon Hinnell), who filled the post for 40 years, died on Wednesday morning, at his residence at Rivington, near Bolton, a moorland house adjoining the much-discussed Lever Park. Mr. Hinnell was about 77 years of age, and was said to be the oldest town clerk in the country. His salary was £1,200 per annum. He was a native of Bury St. Edmunds.

MUNICIPAL LOANS IN 1904.

In Spite of the Extraordinary Attempts of Interested Financiers to Cripple Municipal Borrowing, an Increase of Over 26 per cent. is Shown on the Preceding Year. The Financial Barometer Indicates that Municipal Activity is Increasing not Only in this Country, but Also Abroad, Particularly in the United States. The Position of Municipal Credit Compared with "the Funds."

THE anomalous conditions that prevailed in the Money Market in the first half of the year so far as municipalities and public loans are concerned were continned in the second half that has just been brought to a close. There was a revival of the clamour against expenditure by local bodies even on remunerative trading enterprises, and investors generally being unfavourably disposed to public loans of any description, authorities found it too expensive a process to raise large sums by stock issues. The general public have as much faith as ever in corporations as investment agencies, and though they, too, showed little disposition to subscribe freely to issues out of which they suspected the underwriters were making too much profit, they have shown the utmost willingness to support the short-time mortgage principle. A very large number of local authorities from county councils to school boards now regularly advertise themselves as open to accept loans of almost any amount on these terms, and a great deal of money finds investment in this way without the publicity of the open market. Trustees of savings banks have complained lately that a very considerable proportion of their deposits has been withdrawn for the purpose of being loaned to corporations in this way, and even bucket shops have announced their willingness to finance municipalities on more or less easy conditions. The banks and insurance offices have extended a great deal of accommodation to local authorities during the past six months, and many of the big private loans have been placed with them. The total number of loans during the latter half of 1904, so far as we have been able to ascertain it, was 145 by 141 authorities, as against 116 loans by 108 authorities for the corresponding period of 1903. A summary of these issues, classified for the last six months of each year, is appended :—

	1904. £	1903. £	+Inc. or −Dec. £
British Government ...	Nil.	Nil.	—
County Councils ...	216,206	37,620	+ 178,586
Corporations	2,680.105	4,326,719	− 1,646,614
Urban District Councils	707,657	599,822	+ 107,835
Rural District Councils	32,366	101,941	− 69,575
Boards of Guardians...	129,770	44,470	+ 85,300
Miscellaneous Bodies...	28,192,154	258,007	+27,934,147
Foreign and Colonial authorities	6,837,830	3,221,000	+ 3,616,830
Total	38,796,088	8,589,579	+30,206,509

The 1904 aggregate includes the large amount of stock issued by the Metropolitan Water Board in exchange for securities in the old companies and a flotation by Rome for conversion purposes. These involve no placing of fresh funds, and should be deducted in comparing results with 1903. Allowing for this, the six months' issues show a decline of about £2,181,400, or 25 per cent. The greater part of the money raised as short-time loans is not, of course, comprised in the total, nor are the issues of bills included. Three authorities—the London County Council, the Sheffield Corporation, and the Derwent Valley Water Board—asked between them for £1,863,000 on twelve months paper, and secured fairly good rates of discount, making the total subscribed for in this way for the whole year £3,663,000, as compared with £2,500,000 in 1903. The full details of the last six months' ordinary loans follow:—

Authority.	Description.	Amount.	Issue Price.
		£	%
COUNTY COUNCILS.			
Ayr	3½ p.c. Loans	11,370	—
Buckingham	3¾ p.c. Debs.	59,300	par f
Dorset	3 p.c. Stk.	10,886	—
Dumbarton	Loans	31,650	—
Worcester	4 p.c. Debs.	100,000	—
York, North Riding ..	Loan	3,000	—
CORPORATIONS.			—
Bangor	Loan	600	—
Bervie	Loan	400	—
Bolton	3½ p.c. Stk.	2,640	—
Bristol	4 p.c. Loan	600,000	—
Canterbury	3¼ p.c. Loan	17,000	—
Carnarvon	Loan	1,000	—
Dublin	3¼ p.c. Stk.	42,370	—
Dumbarton	Loan	2(,000	—
Gloucester	3½ p.c. Loans	35,149	—
Haverfordwest... ...	3⅞ p.c. Loan	1,600	—
Hythe	Loans	3,990	—
Kinning Park	3½ p.c. Loan	6,000	—
Leeds	4 p.c. Loans	1,000,000	—
Lincoln	3 p.c. Stk.	18,516	—
Loudonderry	3 p.c. Db. Stk.	16,711	—
Maldon	Loan	525	—
Margate	4 p.c. Loan	10,000	—
,, ...	3¾ p.c. Loan	400	—
Millfort	3½ p.c. Loans	1,550	—
Plymouth	4 p.c. Loan	250,000	—
Poole	3 p.c. Stk.	1,591	—
Reigate	Loan	2,800	—
Rotherham	3 p.c. Stk.	1,400	—
Stewarton.	3¾ p.c. Loan	1,700	—
,, ...	Loan	2,000	—
Swansea	4 p.c. Loan	400,000	—
Tiverton	Loan	38.250	—
Tynemouth	4 p.c. Loan	100,000	—
Waterford	3½ p.c. Stk.	4,749	—
Wokingham	Loan	1,500	—
Worcester.	4 p.c. Bonds	75,000	—
Worthing.	Loans	22,664	—
URBAN DISTRICT COUNCILS.			
Aldershot.	Loan	10,800	—
Birkdale	Loan	34,000	—
Branksome	Loan	28,500	—
Buxton	Loans	52,864	—
Crompton.	Loans	16,746	—
Edmonton	Loans	29,510	—
Esher and Dittons ...	Loans	44,169	—
Felling	Loans	12,500	—
Holyhead	Loans	16,000	—
Hoyland	4 p.c. Loan	1,000	—
Kingstown	3¼ p.c. Stk.	68,000	95 m
Littleborough	Loan	32,500	—
Matlock	Loan	10,000	—
Minehead.	Loans	14,150	—
Pembroke	3¼ p.c. Stk.	1,515	—
Rathmines and Rathgar	3½ p.c. Stk.	19,135	—
Redditch	4 p.c. Loan	16,000	—
Rhondda	Loans	24,717	—
Royton	Loans	58,000	—
Scunthorpe	4 p.c. Loan	20,000	—
Walthamstow	Loans	37,810	—
Watford	Loan	25,808	—
Worksop	3½ p.c. Loans	4,350	—
Yeardsley-cum-Whaley	3⅞ p.c. Loan	660	—
Minor Issues	Loans	129,923	—
RURAL DISTRICT COUNCILS.			
Orsett	Loan	2,327	—
Rugby	Loans	1,300	—
Runcorn	3½ p.c. Loan	2,500	—
Tavistock.	Loan	1,500	—
Truro	Loans	3,134	—
Wexford...	Loan	20.000	—
Minor Issues	Loans	1,605	—
BOARDS OF GUARDIANS.			
Ashton-under-Lyne ...	Loan	12,000	—
Bolton	Loans	2,522	—
Chipping Norton ..	Loans	4,876	—
Dartford...	Loan	2,500	—
Dudley	Loan	3,570	—
Lanchester	Loan	3,000	—
Newmarket	Loan	2,000	—
Ormskirk	Loan	4,000	—
Reigate	Loan	15,975	—
South Dublin	4 p.c. Loan	14,000	—
Stockport	Loan	44,400	—
Stourbridge	Loans	14,250	—
Minor issues	Loans	6,677	—
MISCELLANEOUS BODIES.			
Airdrie School Board	3½ p.c. Loan	3,025	—
Belfast City and District Water Commission	3½ p.c. Stk.	130,000	—
Brislington Parish Council	Loan	2,500	—
Cathcart School Board	Loan	12,000	—
Leigh Joint Hospital Board	Loan	3,500	—
Mersey Docks and Harbour Board ...	3 p.c. Db.Stk.	650	—
Metropolitan Water Board	3 p.c. B Stk.	£1,500,000 / £26,284,609	92½ m
Shepley and Shelley Joint Sewerage Board	Loan	4,870	—
Sidmouth Burial Board	Loan	1,000	—
Southampton Harbour Board	4 p.c. Stk.	250,000	Par f
FOREIGN AND COLONIAL AUTHORITIES.			
Cape Town	4 p.c. Stk.	368,550	98½ f
Rome	3¾ p.c. Bonds	6,103,280	—
Sydney (Nova Scotia)	4 p.c. Dbs.	66,000	93 f
Toronto	3½ p.c. Bonds	50,000	—
Wooodstock	4 p.c. Stk.	250,000	95 f

f fixed, m minimum.

There is not much field for comment in this table. The remarkable feature of the period dealt with is that not a single corporation made a stock issue in the open market, whereas in the latter half of 1903 Bournemouth, Brighton, Bristol, Hastings, and Liverpool all appealed to the public investor. Leeds obtained its £1,000,000 in small sums, and refused another £500,000. A notable experience was that of the Worcester Town Council, which required £75,000 in 4 per cent. bonds, and had £400,000 offered. The steadily increasing amounts raised by urban district councils are a further proof of their enterprise and vigour, and show they are following briskly in the footsteps of the municipalities, especially in the direction of trading enterprises. The issue of 3¾ per cent. stock by the Irish council of Kingstown was a great success, and was subscribed for nearly twice over at nearly a point and a half above the minimum price. The increasingly large loans raised by boards of guardians are chiefly evidence of the expansion of infirmary accommodation in our unions. The Metropolitan Water Board's public issue just surged through at about ⅛ above the minimum price, whilst the large amount of stock emitted in exchange for the securities of the former proprietary companies was handed over at 109½ for every 100 old scrip. The Southampton Harbour Board's Loan was easily placed, the lists being closed on the day of opening, or four days before the advertised limit. In the Foreign and Colonial section, South Africa was again the most insistent borrower, Cape Town and Woodstock appealing between them for nearly half a million. This makes the total for South African municipalities for the year £3,381,550, and raises the aggregate since the close of the war to over £7,300,000. The Rome issue was for the conversion of the Four per Cent. Bonds placed here between 1882 and 1891.

Turning now to the loans for the whole of 1904, our customary abstract of them gives the following results, the figures for 1903 being added for the sake of comparison :—

	1904 £	1903 £	+Inc. or −Dec. £
British Government	6,000,000	2,000,000	+ 4,000,00
County Councils	6,075,445	5,915,320	+ 160,125
Corporations ...	5,320,847	8,571,671	− 3,250,824
Urban District Councils ...	1.048,496	867,385	+ 181,111
Rural District Councils ...	82,172	167,566	− 85,394
Boards of Guardians	227,173	51,640	+ 175,533
Miscellaneous bodies.. ...	23,280,501	1,505,407	+ 26,775,094
Foreign and Colonial Authorities ...	17,580,763	6,385,114	+ 11,195,654
Total ...	£64,615,402	25,464,103	+ 39,151,299

Allowing for the Metropolitan Water Board exchange and the Rome conversion, the total records an increase of £6,763,410, or over 26 per cent., a sufficiently striking answer to the attempts of company promoters and financiers to discourage the independent raising of money by municipalities. The total number of issues was 269 by 243 authorities, as against 197 issues by 168 authorities in 1903. This activity finds reflection abroad, especially in the United States, where the cities have raised an exceptionally large sum during the past twelve months. The total is somewhere about £51,000,000, as compared with £31,500,000 in 1903. Paris floated a 2½ per cent. loan for £6,800,000 at an issue price of 88, the same being subscribed for nearly 90 times over; and Rio de Janeiro raised locally £4,000,000 in

5 per cent. bonds, which only escaped being placed here by a breakdown in the negotiations.

In the security market corporation stocks have felt the general depreciation in values that has impartially affected all classes of investments, even the most solid, during 1904. Latterly there has been an upward tendency manifested, but the following table shows that that tendency by the close of the year had not had time to make any pronounced nett improvement.

Stock.	31 Dec., 1903.	31 Dec., 1904.	+Rise or −Fall	1904. H	1904. L
COUNTY COUNCILS.					
Hants 3	92	92	—	92	89
London 2½	80	81½	+ 1½	83½	76½
London 3	91½	94½	+ 3	94½	89⅞
Middlesex 3	94	90½	− 3½	94	89¼
Somerset 3	94	91	− 3	91⅞	89
Surrey 3	94½	91	− 3½	95½	90¼
CORPORATIONS.					
Birmingham 3	92½	92	− ½	94⅜	91½
Bradford 3	92	90	− 2	91	89¼
Bristol 3	92½	90	− 2½	92½	88½
Cardiff 3	91½	87	− 4½	91½	86½
Cheltenham 3	90	88	− 2	90	86½
Croydon 3	92	88	− 4	92	86
Douglas 3	86	85	− 1	86	85
Dublin 3¼	93	94½	− ½	96	92
Eastbourne 3	91	87	− 4	91½	87
Edinburgh 3	94	92	− 2	94	91½
Glasgow 3	96	92	− 4	96	91½
Leeds 2½	82	75	− 7	82	72
Liverpool 3½	110½	109	− 1½	111	106
London 2½	84	82	− 2	84	80
Manchester 3	95	94	− 1	96	92
Middlesbrough 3	93	89½	− 3½	93	87
Newcastle-on-Tyne 3½	102	100	− 2	102½	99⅝
Penzance 3	90½	87	− 3½	90½	87
Richmond (Surrey) 3	89	86	− 3	89½	86
Sheffield 3	92	91	− 1	92½	88
Taunton 3	87½	85	− 2½	87⅞	85
West Ham 3	89½	83	− 6½	89½	80½
URBAN DISTRICT COUNCILS.					
Barry 3	85½	80	− 5½	85½	80
Heston & Isleworth 3	88	86	− 2	88	86
Rhyl 3½	99	95	− 4	99	94½
Weston-super-Mare 3	87	85	− 2	87	84½
MISCELLANEOUS.					
Chesterfield Gas and Water 2¾	81½	80	− 1½	82⅜	80
Local Loans 3	97½	97½	—	99⅜	94⅞
Swansea Harbour 4	102	102½	+ ½	—	—
Tees Conservancy 3	87	86	− 1	87	85½
Tyne Improvement 3½	95½	94	− 1½	96½	93½

The amount of home issues now listed in London is about £201,227,000, of which £35,248,347 was added during the year. The total of foreign and colonial municipal stocks listed is about £53,832,000, of which 1904 contributed £5,777,254. When once the market begins to advance, corporation stocks will appreciate as quickly as the Funds, if not more quickly, for however external circumstances may temporarily affect current prices their intrinsic value can never be impaired.

BRADFORD BREAKDOWN.

OFFICIAL ASKED TO RESIGN.

AS a result of the serious disolosures following the recent breakdown in the electricity supply at Bradford, one of the officials has been requested to tender his resignation.

Mr. Blackman, the city electrical engineer, in a report to the Electricity Committee, stated that the maps which should locate the exact situation of the cables were found to be incorrect. In some cases cables shown on the plans to be on one side of the street were found on the opposite side, and in other instances they were found in the roadway when marked under the pavement.

The Engineer pointed out that this necessitated great caution, as there was always the chance of cutting into a live cable when following up dead cables. In sinking a trial hole in Kirkgate, two cables were found in a stoneware drain-pipe.

The official who has been asked to resign has had charge of outside affairs, and he is held by the committee to be responsible for absence of working plans.

THE Local Government Board has informed the Scarborough Corporation that it will be necessary to call a public meeting or take a poll of the town before the Council will be empowered to borrow additional money—abont £20,000—for the completion of the new Marine Drive and south approach road. The total cost of the undertaking will be something like £100,000.

EDUCATIONAL NOTES.

Anglesey Short of Funds. Half-Time Certificates at Bolton. Scholarships at Cheshire, Lancashire, and Wrexham. Moral Instruction at Coventry. Attendance Bye-laws at Lincoln and Reading. Courts of Justice for Scholars. Conference on Fees at Tottenham.

Anglesey.—At a meeting of the Education Committee complaints were made that the salaries of the teachers had not been paid for some months. It was stated that there was no money in hand at present to meet the salaries for the latter end of last year, and the question was left in abeyance.

Birkenhead.—A committee has been formed to consider and report as to the steps that should be taken to provide meals for under-fed children attending the public elementary schools.

Birmingham.—The Education Committee has agreed to hire an omnibus, horses, and driver for the conveyance of children attending the school for physically defective children, to and from their homes.

Blackpool.—The Education Committee has received peremptory orders from the Board of Education to proceed at once with the erection of two new schools—one at North Shore, and the other to replace a temporary school in Waterloo Road.

Bolton.—The Board of Education has intimated to the education authority that certificates entitling a child to half-time exemption may be cancelled or withdrawn if the child to whom it was issued is not shown to be beneficially employed, or if in the opinion of the local education anthority it is desirable to do so.

Brighton.—The Education Committee has informed the voluntary school managers in the county borough that if it is desired that the children should attend church on any day during the hours of religious instruction, the parents of such children must notify in writing to the managers their intention to withdraw their children from the religious instruction given in school from 9 to 9.45 a.m., in accordance with the bye-law regulating attendance at school within the borough.

Cheshire.—The County Education Committee has approved an important scholarship scheme. Among others to be offered, are 150 county junior scholarships for boys and girls not over 14 years of age. Each scholarship will be awarded in the first instance for a year, renewable for a second and third on a satisfactory report. Various other scholarships, including 20 county junior, 6 university and 14 agricultural, are included in the scheme.

Coventry.—The Education Committee has recently considered the question of moral teaching in its schools, and after having heard a deputation of teachers, has declined to adopt the Leicester scheme of moral instruction for schools.

Glamorganshire.—The County Education authority has been summoned by a rural district council for a breach of the bye-laws, in not having furnished the latter body with a copy of the plans of a proposed new school. It was contended on behalf of the education authority that as the plans had been approved by the Board of Education, and a loan granted before the county council took over the responsibilities of the old school authority, no offence had been committed. The case was dismissed with a judicial expression of opinion that the district council had a right to have the plans.

Halifax.—The Education Committee has been informed by the Board of Education that it sees no reason at present to alter its decision to refuse sanction for the erection of a three-department school at Salterhebble, in which district there is a Voluntary school, though the Board would allow the building of an infants' school. The Board also states that it will not receive a deputation from the committee on the question, but offers to hold an inquiry at Halifax, at the expense of the Education Committee.

Lancashire.—The County Education Scholarship Scheme provides scholarships costing about £27,000, which will include 120 junior exhibitions, annual value £12; 600 exhibitions for intending pupil teachers; 40 senior exhibitions, valne £20 annually; and 15 scholarships, annual value £60, and tenable for three years.

Leyton.—The Education Committee has decided, as an experiment for six months, to open several of its school playgrounds for the use of the children after school hours, as there have been a number of accidents to children caused through playing in the streets.

Lincoln.—New bye-laws for regulating school attendance have been drawn up and approved. Provision is made, amongst other things, that a child of the age of 12 years may leave school if it is shown to be beneficially employed, and has made 350 attendances after five years of age in not more than two schools during each year for five years, whether consecutive or not. Half-time is abolished.

London.—The education authority arranged a conference of teachers to be held at the Medical Hall, Victoria Embankment, on 5th, 6th, and 7th January, when papers of educational interest were read and discussed. The chair was taken on the opening session by Mr. J. W. Benn, M.P., chairman of the County Council.

Norfolk.—The Education Committee decided that, instead of the cheques for all teachers' salaries in the same school being sent to the correspondent or chairman of managers for distribution, they be sent to the head teacher of each school.

Nottingham.—The Education Committee has decided that in future all orders for school repairs should go through the architect's department.

Reading.—The education authority is to be recommended to amend the school attendance bye-law by omitting Clause 5 (b). The alteration will make the bye-law read as follows:—A child between 12 and 14 years of age shall not be required to attend school if such child has received a certificate from one of his Majesty's inspectors of schools that it has reached the seventh standard prescribed by the Code for the time being.

Smethwick.—The Education Committee has decided to ask the Town Council to urge upon the borough bench the desirability of taking steps to remove cases of prosecution for irregular attendance at school from the ordinary police-courts, and to establish separate courts for children.

Southampton.—The Education Committee has called for a return giving (a) the number of meetings held by school managers since the appointed day, and (b) the number of possible and actual attendances of each manager.

Tottenham.—The Education Committee has asked the voluntary school managers of the various fee-charging schools to attend a conference with the committee upon the question of school fees.

Wrexham.—The Education Committee will offer a number of scholarships annually to candidates under 14 who will enter into an agreement to become pupil teachers, after three years' tuition. After two years spent in the county school, accepted candidates will be paid salaries as pupil teachers for two years, as follows:—Men, first year £17 10s., second year £20; women, first year £15, second year £17 10s.

York.—The Education Committee has decided to instruct the secretary to report upon the question of the need for providing for the education of defective children of the public elementary school class.

WE have received from the Limmer Asphalte Paving Company, Limited, 2, Moorgate Street, E.C., one of their perpetnal date calendars. The calendar is well produced, and is worthy of a place upon the wall of any office.

LARGER AREAS MOVEMENT.

How it is Spreading in England. The Liverpool Scheme, and Action at Accrington, the Matlocks, and Chesterfield. The Movement in Australia and New Zealand. Federation versus Unification: The Opinion of the Town Clerk of Sydney.

THERE are evidences on every hand that the movement for the extension of local government areas is taking hold of the public bodies concerned

LIVERPOOL SCHEME.

The Special Parliamentary Committee of the Liverpool City Council has formally recorded its opinion that it might be to the mutual advantage of the City of Liverpool and the Boronghs of Bootle and Birkenhead and the adjacent districts if they could be federated for local government purposes, and recommends the council to authorise the committee to confer with the councils of such boroughs and districts with the view of ascertaining whether they would be willing to co-operate in formulating a scheme for the purpose, and report the result to the council.

BOOTLE AND ORRELL.

THE "Bill to extend the Borough of Bootle and for other purposes" proposes to absorb within the borough the detached portion of the township of Orrell and Ford called Orrell, the added area to form a new ward represented by three councillors and an alderman.

The Bootle Town Conncil would thus be increased from 40 members to 44. The first election of councillors for Orrell Ward will take place on November 1st next, the election of the alderman following on the 9th. Any county police officers affected by the absorption would be added to the Bootle borough constabulary.

Ford is to be constituted a separate parish.

The costs of obtaining the Act are to be charged to the Bootle Corporation.

SUGGESTED NEW COUNTY BOROUGH.

An Accrington correspondent says the desirability or otherwise of amalgamating with Accrington for the formation of a county borough is still being discussed by the Clayton-le-Moors District Council. Mr. Fullalove, ex-town clerk of Barnley, who was called in as expert to investigate and report, is stated to have declared in favour of amalgation.

THE MATLOCKS AND AMALGAMATION.

An agitation is in progress in Matlock for an amalgamation of the two Urban Council areas, viz., Matlock and Matlock Bath.

On Friday a petition, signed by upwards of 100 owners and ratepayers in the Matlock Bath Council district, was presented to Mr. Myles A. Sleigh, the clerk to the Matlock Council, praying for amalgamation with Matlock.

The points advanced in favour of the scheme are that the forthcoming sewerage works would be more effective if carried out jointly; that if the two districts united there would be a saving of about £10,000 in the removal of the gasworks at Matlock Bath; and that there would also be a saving in having only one set of officials instead of two.

CHESTERFIELD.

Proposed Extension Scheme.

An attempt is about to be made to extend the municipal boundaries of Chesterfield, and there is a probability that before very long the old Derbyshire town will be elevated to the ranks of the county boroughs. Chesterfield is hedged in on the north and the west with crowded suburbs, which are nevertheless outside the area of the borough.

The semi-circular ring of urban districts, composed of Brimington, Whittington, Newbold, and Brampton, is practically a portion of Greater Chesterfield. The inhabitants of these places have interests that are almost identical with those of the burgesses, they derive their water and their gas from Chesterfield, and they look to the "town of the crooked church steeple" as their common centre.

Their streets and those of Chesterfield are in some cases continuous thoroughfares, and, in the case of Brampton, the Corporation actually lights one side of the street and the District Council lights (or fails to light) the other side. These outer districts have just been brought into closer connection with the borough by the reorganisation and extension of the municipal tramways system.

The electric cars of the Corporation made their first journey last week from Brampton Moor into Chesterfield, and thence along the Sheffield Road northwards as far as Sheepbridge. This latter part of the line serves Newbold, Brimington, and Whittington equally well. It approaches within two miles of Dronfield, towards which place the Sheffield Corporation electric tramways are rapidly being pushed forward. The time is probably not far distant, therefore, when Chesterfield will be connected by road railways with Sheffield.

The growth of Chesterfield in recent years has been rapid. At the time of the passing of the Municipal Reform Act in 1835 the borough contained only 6,000 people. Even when the census of 1861 was taken this number had only increased to 9,886, and 20 years later the population was 12,221. Between 1891 and 1901, however, there was a leap from 13,242 to 27,185, the boundaries having in the intervening period been considerably widened. Now the population is estimated at about 30,000.

Of the four districts which have been alluded to above the largest, in point of population, is Whittington, which had 9,416 inhabitants at the time of the last census. Then come Newbold with 5,986, and Brimington with 4,569. Brampton, which is partly rural and partly urban in character, had a population of 2,185 in 1901. It is not proposed to bring the rural part of the district within the borough, and the portion which is affected—New Brampton—contained about 1,500 people.

In the three years since the census was taken the population has grown to a greater or less extent in all these places, so that if the proposed scheme of amalgamation is carried out Chesterfield will have considerably more than the 50,000 inhabitants who will cause it to qualify for county borough rank.

ACTION ABROAD.

The movement is by no means confined to home municipalities. The Town Clerk of Adelaide (Mr. T. Geo. Ellery) has got together much information on the subject of the greater city movement abroad, with which he has favoured us.

Melbourne.

The city of Melbourne has twice extended its boundaries. Bourke Ward, with an area of 1,885 acres and a population of 12,630, was annexed in 1894; while in 1900 Albert Ward —area 1,135½ acres, population 7,680—threw in its lot with the larger body. Melbourne now has seven wards, and covers an area of 5,740 acres. Further movements are afoot for a unification scheme, to embrace a larger portion of its metropolitan area, and a Royal Commission is still at work in the matter. In Sydney nothing so far has eventuated except talk about a "Greater Sydney," and the Town Clerk (Mr. Nesbit) writes:—

Unification v. Federation.

"After two years' experience of local circumstances, I confirm my previously expressed opinion in favour of unification, as against what I believe the untenable principle of federation, the adoption of federation being merely the adoption of a system having a direct tendency to perpetuate existing evils, and consequent extravagance. I favour and advocate the principle of unification after nearly 30 years' close and intimate study of every phase of municipal politics, municipal institutions, and municipal functions of every character, and the administration of municipal law coming within the cognisance or purview of an executive officer of a municipality. It is true that I cannot lay claim, like some of those who hold contrary opinions, to possessing what has been euphemistically termed an intimate knowledge of the temperament of the people; and, whilst one distinguished apostle of federation, in a sudden excess of zeal, has declared it gratuitous on my part to infer that suburban aldermen are more tenacious of the little honour that titles give them than they are willing to embrace the unification theory which I propounded, I not only admit the inference, but still adhere to the view expressed, and which experience has clearly demonstrated to be correct in every particular, because suburban aldermen are not likely to consent to be relegated to obscurity, and hide their light under a bushel. Others, possessing a more intimate knowledge of the temperament of the people, and better qualified than myself to judge, have generously confirmed my opinion, and have borne unsolicited testimony to its accuracy and to the utility of unification as compared with federation."

Other Proposals.

The question is receiving much attention in Greater Auckland, 7,000 or 8,000 acres being proposed to be added to the city.

Greater Wellington, New Zealand, has become an accomplished fact. Mr. Palmer (town clerk) states that—

"The amalgamation of the late Wellington and Melrose Boroughs eventuated by *Gazette* notice on April 1st, 1903. For one month—*i.e.*, until the election on April 29th, the late Melrose borough councillors sat with the representatives of the late Wellington City Council. The amalgamation provided that for the first biennial period the respective areas of the late boroughs should be the two wards of the 'Greater' Wellington City, and be designated Wellington and Melrose respectively, the former having 12 and the latter three representatives. The next election will take place in April, 1905, when it is probable that the undivided borough system will be again adopted.

"The experience of the past year has been that increased interest has been manifested in regard to the Melrose Ward and its requirements, where, while not a great deal has been as yet actually accomplished, preparation has been made for improvements which will bring the district more into line with the advantages of the city.

Dunedin.

The matter of extension is before Dunedin, and the Greater Dunedin Committee recommends, *inter alia*:—(1) Complete fusion of all assets and liabilities of the city and various boroughs; (2) the constitution at the outset of the city and several boroughs each as a separate ward for rating purposes; (3) the maintenance of differential rating in the several wards so constituted, until it is found that a uniform general rate has become feasible; (4) in the meantime, a general rate of (say) 1s. to 1s. 3d. in the £ to be levied, special and separate rates being continued; (5) a council of 21 members; (6) the eventual division of the united area into wards for electoral purposes, each ward representing an equal proportion of municipal electors, boundaries being changeable by the council as population varies; (7) the supply to the suburbs of water and gas on the same terms as the city; (8) the cutting off from the united borough of the rural portions of Roslyn, Maori Hill, North East Valley, and West Harbour, which could be re-absorbed as the city extended; (9) the eventual absorption of the functions of the Drainage Board; (10) the retention as far as possible of the services of the officials of the suburban boroughs; (11) amending legislation to give effect to the proposals.

It is proposed that Perth, Western Australia, amalgamate with five outlying suburbs, so adding 9,984 to its present area of 2,300 acres.

The district of Booroodabin was annexed to Brisbane in 1902, enlarging its area from 1,537½ acres to 3,457½ acres, or more than double.

The three contiguous boroughs of Linwood, Sydenham, and St. Albans were in 1902 joined with Christchurch, increasing the area by 3,349 acres, and the population by 26,712.

OFFICIAL & PERSONAL.

BRADFORD DEPUTY TOWN CLERKSHIP.

Leeds Candidate Appointed.

THE Finance and General Purposes Committee of the Bradford Corporation met last week to make a final appointment from the six candidates previously selected for the post of deputy town clerk, vacant by the appointment of Mr. F. D. Wardle to the town clerkship of Bath. There were originally 38 applicants for the post, but those in the final selection were—

Mr. H. Craven, assistant solicitor to the Sheffield Corporation.
Mr. Arthur Holt, deputy town clerk of Blackburn.
Mr. William Hudson, deputy town clerk of Huddersfield.
Mr. Hugh L. Parry, senior assistant solicitor to the West Riding County Council.
Mr. Percy Saunders, assistant solicitor to the Leeds Corporation; and
Mr. Charles Sydney Watson, clerk and solicitor to the Walthamstow District Council.

The salary offered was £500 a year, rising in instalments of £50 to £750 a year, but it was decided that the salary should be £500 per year, with no stipulation as to increases. Each of the six candidates was interviewed, the final choice ultimately falling upon Mr. Percy Saunders, assistant solicitor to the Leeds Corporation.

Mr. Saunders, who is 29 years of age, is a solicitor of six years standing, and he is at present in charge of departments of the Leeds Corporation which include the Sewerage, Highways, Sanitary, and Insanitary Areas Committees. He has from time to time prosecuted on behalf of the police, and attended local inquiries held by inspectors of the Local Government Board. Previous to his Leeds appointment he was for four years managing clerk to Messrs. Sharp, Parker and Co., solicitors to the Association of Municipal Corporations, London. He was also for some time in private practice in the firm of Messrs. Kite, Broomhead, and Kite, of Taunton and North Kerry, and he served his articles with the town clerk of Taunton.

MAIDSTONE TOWN CLERK RESIGNS.

MR. HERBERT MONCKTON on Monday resigned the town clerkship of the borough of Maidstone, which office he had held for exactly 30 years. He is a brother of the late Sir John Monckton, for many years town clerk of the City of London.

GLASGOW TOWN CLERKSHIP.

THE Glasgow Town Council has approved the recommendation of the special committee on the town clerkship, that applicants for the post be advertised for at a salary of not less than £1,500 a year.

The letter from Mr. Monro, senior deputy town clerk, asking to be relieved of duty as soon as possible, and stating that he considered the offer to him of a salary at the rate of £1,000 a year while acting as interim town clerk as a slur on the office, was remitted for consideration by the special committee.

LEIGH ELECTRICAL ENGINEER.

MR. A. T SMITH, of Bury, has been recommended by the Electricity Committee of the Leigh Corporation for appointment to the post of electrical engineer, in the place of Mr. D. M. Kinghorn, who has been appointed electrical engineer of Southwark, at a salary of £350 per annum. Mr. Smith is to receive £250 per annum, rising to £350 by yearly increments of £25. There were 147 applicants for the post.

ELECTRICAL ENGINEER TO WORCESTER.

AT a meeting of Worcester City Council on Tuesday, Mr. Cyril M. Shaw, of Wakefield, was elected electrical engineer to the Corporation, receiving 29 votes to 7 given for the second selected candidate. There were 95 applications. The salary is £400, rising by annual increments to £500.

FINANCES OF LONDON BOROUGHS.

MR. THOS. E. CHARLES, F.S.S., the Borough Accountant of Deptford, has just prepared his annual statement showing the Rateable Value, Nett Indebtedness (incurred by the Local Authority), Rates in the £, and population of the various Metropolitan Boroughs, together with the percentages of such Debt to the Rateable Value and the Debt per head of the population at 31st March, 1904. The object the compiler had in view in classifying the indebtedness as it appears was not so much to show which are actually marketable assets, as to distinguish that part of the debt which is, from a monetary point of view, wholly unremunerative from that which at some time or another is profit-making, such as Electricity, Housing of the Working Classes, or Cemetery undertakings, or that which bears a certain market value, such as Freehold Land or Buildings. Column (*a*) simply shews the indebtedness against which the Councils have assets, and not the value of the assets in respect of the Indebtedness.

Name of borough.	Rateable value.	Net indebtedness. Against which Council has marketable assets. (*a*)	Net indebtedness. Against which Council has no marketable assets. (*b*)	Net indebtedness. Total. (*c*)	% of indebtedness. (*b*) to R. V.	% of indebtedness. (*c*) to R. V.	Population (1901)	Debt. (*b*) Per head of population. £. s. d.	Debt. (*c*) Per head of population. £. s. d.	Total rate in £ s. d.
	£	£	£	£						
Battersea	1,031,769	499,300	161,396	660,696	15·64	64·03	168,907	0 19 1	3 18 2	7 9
Bermondsey	912,668	201,042	49,144	250,186	5·38	27·41	130,760	0 7 6	1 18 3	8 10¾
Bethnal Green ...	527,941	49,013	51,705	100,718	9·79	19·07	129,680	0 8 0	0 15 7	7 11
Camberwell	1,297,572	273,737	147,646	421,383	11·38	32·47	259,339	0 11 4	1 12 6	8 1
Chelsea	830,997	65,969	22,323	88,292	2·68	10·62	73,842	0 6 1	1 3 11	7 0
Deptford	602,901	76,426	35.889	112,315	5·95	18·63	110,388	0 6 6	1 0 4	7 2
Finsbury	980,428	50,756	65,511	116,267	6·68	11·85	101,463	0 12 11	1 2 11	6 9
Fulham	823,186	353,412	54.058	407,470	6·56	49·50	137,289	0 7 10	2 19 4	7 4
Greenwich	592,190	35,066	57,012	92,078	9·62	15·55	95,770	0 11 11	0 19 2	8 0
Hammersmith ...	717,228	217,8 8	118,564	336,402	16·53	46·90	112,239	1 1 1	3 0 0	6 10
Hackney	1,190,597	289,276	225,360	514,636	18·93	43·22	219,288	1 0 7	2 6 11	7 2
Hampstead	1,031,342	404,877	122,924	527,801	11·92	51·17	81,942	1 10 0	6 8 9	6 10
Holborn	951,381	83,668	30,230	114,098	3·18	11 99	59,405	0 10 2	1 18 5	7 6
Islington	1,930,025	513,534	124,466	638,000	6·45	33·05	334,928	0 7 5	1 18 1	7 0½
Kensington	2,295,703	103,893	176.871	280,764	7·70	12·23	176,623	1 0 0	1 11 9	6 5
Lambeth	1,907,908	112,512	130,050	242,562	6·81	12·71	301,895	0 8 7	0 16 1	7 1
Lewisham	952,852	90,029	62,895	152,924	6·60	16·05	127,495	0 9 10	1 4 0	7 6
Paddington	1,481,870	59,001	58,497	117,493	3·94	7·93	143,976	0 8 1	0 16 4	6 7
Poplar	815,507	251,069	229,120	480,189	28·09	58·88	168,822	1 7 1	2 16 10	9 8
St. Marylebone ..	1,738,347	63,553	110,163	173,716	6·34	9·99	133,301	0 16 6	1 6 1	6 9
St. Pancras .	1,800,201	586,503	242,526	829,029	13·47	46·05	235,284	1 0 7	3 10 6	7 1
Shoreditch	792,532	567,697	152,578	720,475	19·25	90·91	118,637	1 5 9	6 1 5	7 8
Southwark	1,258,824	273,217	99,320	372,537	7·69	29·59	206,123	0 9 8	1 16 1	7 1¼
Stepney . ..	1,419 706	310.712	196.177	506,889	13·82	35·70	295,211	0 13 4	1 14 4	8 5
Stoke Newington ...	346,417	10,779	38,934	49,713	11·24	14·35	51,247	0 15 2	0 19 5	6 6½
Wandsworth	1,713,723	146.328	89,581	235.909	5·23	13·77	232,034	0 7 9	1 0 4	7 2½
Westminster	5,561,675	260,432	327,510	587,942	5·89	10·57	183,011	1 15 9	3 4 3	6 8
Woolwich	689.212	345,426	37,752	383,178	5·48	55·60	117,178	0 6 5	3 5 5	7 5⅝

MOTOR REGULATIONS.

HOW THEY AFFECT LOCAL AUTHORITIES.

THE new regulations of the Local Government Board with respect to heavy motor vehicles have a considerable interest for local authorities. The registering authority for heavy motor-cars is the same as is specified in the Motor Car Act, 1903, and the regulations and enactments applicable to motor-cars under the Acts of 1896 and 1903 apply to heavy motor-cars, with slight modifications, while additional stipulations and obligations are imposed by the new regulations.

The maximum weight of motor-cars as defined by the Act of 1896 is increased from three to five tons, and with a trailer from four to six and a half tons. By this alteration motor-cars over three tons and under five tons in weight have been withdrawn from the control of the Locomotives Act of 1898 as "locomotives," and, instead, placed under the Acts of 1896 and 1903 as "heavy motor-cars," and as such may now be "registered" by any local authority (including county and county borough councils) defined by the Act of 1903, instead of being "licensed," as previously, by the county or county borough in which the locomotive is principally used under the Act of 1898.

The regulations apply to heavy motor-cars only—*i.e.*, cars over two tons weight and not exceeding five tons. The registering authority is to provide a separate register of heavy motor-cars, to comprise the same head lines as the present register, with the addition of the following:—(a) The weight of the heavy motor-car unladen; (b) the axle weight of each axle; (c) the diameter of each wheel; (d) the width and material of the tire of each wheel; and (e) the highest rate of speed at which, in conformity with the regulations, the heavy motor-car may be driven without a trailer, and a separate application form, similar to the one at present in use, with the addition of the following heads:—(a) The weight of the heavy motor-car unladen; (b) the axle weight of each axle; and (c) the diameter of the wheel.

All motor-cars weighing over two tons which have been registered under the existing regulations are to be re-registered by the local authority free of charge; and within six months of the passing of the new regulations this must be effected, and such motor-cars will thereafter be subject to all the new obligations imposed by the regulations.

In addition to the obligations of the registering authority to supply a copy of the entry to the owner of motor-cars under Article III. of the 1903 regulations, the owner of motor-cars over two tons in weight (which have been previously registered) shall also be furnished with a certificate to the effect that the procedure prescribed by Article IV. has been followed, and that the heavy motor car may be used on a highway without further registration.

The registering authority is empowered to verify, through its officer, the weight of the heavy motor-car and the axle weight of each axle, and such officer shall certify the weight or weights ascertained by him, and make any necessary correction in the statement of weights declared by the owner in his application. The officer shall also satisfy himself that the tyres of the wheels of the car, if metallic, are of the dimensions required by the regulations. Power is further granted to the road authorities to compel drivers to take motor-cars when loaded to a weighing machine for the purpose of ascertaining if the load is within the weight specified in the register.

OUT in the North-West of Canada, in the town of Maple Creek, Assiniboia, 600 miles beyond Winnipeg, Mr. William Richard Abbott, brother of Mr. George and Mr. Thomas Abbott, well-known in Sheffield, was on a popular vote on the 12th day of December, 1904, duly elected mayor of that town, by a majority of three to one over his opponent. Mr. Abbott has been 33 years in Canada, and is well-known in the region between Winnipeg and Calgary as one of the pioneers of the North-West.

NOTES AND ANSWERS.

No Authoritative Definition of the Term "Statutory Committee." Some Committees to which the Designation Applies: Their Duties and Obligations. When is a Drain a Sewer? More Light on this Troublesome Conundrum. No Legal Power under the Education Acts to Take a Poll. When a Poll may be Taken.

*** *Queries intended for this column should be addressed to the "Legal Correspondent,"* MUNICIPAL JOURNAL, *12, Salisbury Square, E.C. They should be written on one side of the paper only, and be signed by a nom de plume or initials, the real name and address of the correspondent being written on the back of the paper.*

592.—SEWERS AND DRAINS—Combined Drains Liability to Repair.—I enclose a rough plan of eight houses, respecting which the Corporation of this town has served notice on us to re-drain and also put in new main drain or sewer. Nos. 1 and 2 belong to S., Nos. 3 to 8 to J., who has a life interest only, and upon his death the houses become the property of S., the owner of Nos. 1 and 2. Who is answerable to put in this new sewer—the Corporation or S. and J.? In the event of J. having to do his part, he has no money. What steps can be taken in this matter, as S. is virtually the freeholder of the whole lot? Are we also liable from A to B, as well as from C to D? This combined drainage system seems some what of a puzzle, and seems very pliable in certain cases.—"SUBSCRIBER."

The provisions of Sec. 19 of the Public Health Acts Amendment Act, 1890, as set out above, will apply here, if, as we assume and as is generally the case, Part III. of that Act has been adopted. The joint effect of that section and of Sec. 41 of the Public Health Act, 1875, will empower the local authority, on a nuisance arising from the condition of the combined drain, to cause such drain to be examined, and, if it appear to be in a bad condition, the local authority may cause notice in writing to be given to the owner or occupier requiring him forthwith, or within a reasonable time as specified in the notice, to do the necessary works. On default, the authority may execute the required works and recover the expenditure involved from the owner in a summary manner, or may by order declare the same to be private improvement expenses, recoverable by yearly instalments. The owner, as defined by Sec. 4 of the Public Health Act, 1875, means the person for the time being receiving the rack rent of the premises in connection with which the word is used, and would thus include a person having only a life interest in the property affected. Whether the above enactments would cover the requisition on the part of the corporation to re-drain and put down a new main drain, would be a question of fact depending on the extent of the nuisance complained of in this case. The owners are liable under these circumstances in respect not only of the combined drain from C to D (i.e., the drain running behind and parallel to the frontage of the houses), but also in respect of the part from A to B (i.e., the drain or sewer connecting the end of the combined drain with the public sewer under the street in front of the houses). If J. cannot pay his share, the money claimed by the Corporation will be a charge on his property. We should add that this combined drain is a sewer within the meaning of Sec. 4 of the Public Health Act, 1875, and, as such, is vested in the corporation. And where no proceedings are taken under Sec. 41 of the Public Health Act, 1875, above referred to, in respect of a nuisance arising, the corporation is liable to keep the combined drain in repair. (See Sec. 15, Public Health Act, 1875.)

593.—POLL OF THE RATEPAYERS—When may it be taken on Public Questions?—Will you kindly state in your columns what powers are possessed by Corporations with regard to taking a referendum of its citizens. Also what mode of procedure would be necessary for a body of citizens to follow to have this done? The question for which the information is desired, is the rescinding of the resolution of the Education Committee to feed starving children.—"G. O. M."

There is no legal power under the Education Acts to take a poll of the citizens or burgesses or ratepayers of a town on the matter referred to by our correspondent, or on any other question which may arise under the Acts. It is, however, provided by Sec. 8 (1) of the Education Act, 1902, that where the local education authority or any other persons propose to provide a new public elementary school, they shall give public notice of their intention, and any ten ratepayers of the area for which it is proposed to provide the school may, within three months after the notice is given, appeal to the Board of Education on the ground that the proposed school is not required, or that some other school is better suited to meet the wants of the district, and any school built in contravention of the decision of the Board of Education on such appeal shall be treated as unnecessary.

The ratepayers at large have certainly no right to interfere with the decision of the corporation in this case to rescind a resolution of the education committee to feed starving children. Moreover, there would appear to be no legal authority for charging the education rate with expenditure for the purpose indicated in the resolution. It is of course open to any person or persons, at their own expense, to take steps to ascertain the opinion of the burgesses or ratepayers on any subject of public interest, but the expenditure involved cannot be thrown on the rates, and the effect of thus ascertaining the opinion of the public will be merely moral, and will carry no legal consequences with it.

Under the Borough Funds Act, 1903, provision is made in certain cases for taking a poll of the electorate of a borough or urban district in reference to the promotion of a Bill in Parliament by the Council. Schedule III. to the Public Health Act, 1875, sets out the rules to be observed where a resolution of "owners and ratepayers" under that Act is required for any purpose. The meeting must be summoned on the requisition of 20 ratepayers or owners. Such resolution is required where the local authority proposes to provide a market place, and in connection with various other schemes or proposals under Secs. 166, 216, and 272 of that Act.

594.—PARISH COUNCIL — Chairman and Casting Vote.—At our last parish council meeting here on December the 29th, 1904, a report of a committee of eight men, three to form a quorum, was given, but the clerk said two councillors only were present at committee meeting. I sat till the clerk had read the report, and then I inquired if what I thought he said was true, namely, that two councillors only were present; he answered, "Yes." I then protested against the time of the council being wasted by having to sit and listen to an illegal report.

I was told by the chairman, and also by an ex-county councillor, that if the parish council adopted the report that such adoption would make it legal. Is that so? Is there no possibility or means of punishing councillors for thus arrogating to themselves powers not theirs? Further, does the mere fact of a chairman of the parish council-meeting not voting in a first division, for or against, disqualify him for giving a casting vote when the votes are equal in number, for and against?—"CHESTER-LE-STREET."

In our opinion, the adoption and ratification by the parish council of the report of its committee, even though such committee has at one or more of its meetings not had a quorum present, is good and valid, especially having regard to the fact that the council adopted the report with knowledge of the irregularity of the proceedings of its committee. The chairman is empowered to exercise his casting vote even though he has not given an original vote as a councillor. (See L.G. Act, 1894, First Schedule, Part II., rule 10.)

595.—AS TO APPOINTMENTS—As Municipal Engineers and Surveyors In the United States or Canada.—Would you kindly answer the following in your much valued paper. What chances or openings are there for an English municipal engineer and surveyor of obtaining an appointment in either America (United States) or Canada? If any, what is the best paper, American or Canadian, to take as an advertising medium? I may mention that my experience has been latterly on water, sewerage, and general municipal work, 37 years of age, and an associate of the Royal Sanitary Institute.—"S. A. W."

We regret we cannot help our correspondent in this matter, but print the query in case any of our readers may be able to furnish the desired information.

596.—BATHS AND WASHHOUSES ACTS—Can they be Adopted by a Parish Council or by a Rural District Council?—Can a parish council or a rural district council adopt the Baths and Washhouses Acts, or must a parish meeting be called to adopt them?—"F. J."

Sec. 7 of the Local Government Act, 1894, provides, *inter alia*, that in every rural parish (*i.e.*, in every parish in a rural district), the parish meeting shall, exclusively, have the power of adopting the Baths and Washhouses Acts. Ten ratepayers can requisition the parish council to convene a parish meeting to determine whether the Acts are to be adopted. The resolution to adopt the Acts must be carried by a majority of two-thirds of the parish meeting or of the parochial electors. (See Baths and Washhouses Acts, 1866, Sec. 5.) The rural district council is not empowered to adopt these Acts. Urban district councils are empowered to adopt the Acts by Sec. 10 of the Public Health Act, 1875.

597.—"STATUTORY COMMITTEES"—WHAT THEY ARE—What Action can the L.G.B. take in Case of Default by a Local Authority?—Through your valuable and highly instructive "Notes and Answers" columns I shall esteem it a great favour if you give me a reply to the following queries:—

1. What are statutory committees, and the functions devolving upon them?

2. What action may be taken by the Local Government Board in case of (a) actual neglect of duty, (b) inefficient discharge of duty, by local authorities?—"D. P."

(1) There does not appear to be any authoritative definition of the term "statutory committee." Apparently, however, it applies to all such committees as are expressly designated by, and appointed under, some statutory authority. Thus it would apply to the watch committee appointed by municipal corporations under the express directions contained in Sec. 190 of the Municipal Corporations Act of 1882; to the finance committee which county councils (and certain other bodies) are required to appoint by Sec. 80 of the Local Government Act, 1888; and to the assessment committees which boards of guardians must appoint in every year at their first meeting after the annual election, by Sec. 2 of the Union Assessment Act, 1862.

(2) The answer to the second question will differ according as the local authority is a district council (rural or urban), a borough council, or a board of guardians, and, further, much will depend on the precise kind of neglect or inefficient discharge of duty which may be complained of. Sec. 299 of the Public Health Act, 1875, provides that where complaint is made to the Local Government Board that a local authority—*i.e.*, an urban or rural sanitary authority—has made default in providing its district with sufficient sewers, or in the maintenance of existing sewers, or in providing its district with a supply of water, in cases where danger arises to the health of the inhabitants from the insufficiency or unwholesomeness of the existing supply of water, and a proper supply can be got at a reasonable cost, or that a local authority has made default in enforcing any provisions of the Public Health Act, 1875, which it is its duty to enforce, (this Act covers the great majority of the sanitary duties of the authority), the L.G.B., if satisfied, after due inquiry, that the authority has been guilty of the alleged default, shall make an order

limiting a time for the performance of its duty in the matter of such complaint. This Order may be enforced by *mandamus*, or the L.G.B. may appoint some person to perform the duty, and direct the authority, by its Order, to pay the reasonable expenses involved in doing the work, together with the costs of the proceedings. The person so appointed shall have all the powers of the local authority, save the powers of levying rates. Generally speaking, these powers would be exercised in respect of default in connection with the sewerage of a district, or the supply of water, and only in a strong case would they be put in force.

In so far as a default, or neglect, on the part of a local authority whose accounts are subject to Government audit involves a loss of money, the matter will come before the district auditor appointed by the L.G.B. at his audit of the accounts of such authority, and thus indirectly the matter may come under the cognisance and jurisdiction of the L.G.B. Thus, where default on the part of a local authority whose accounts are subject to audit by the district auditor can be shown to have resulted in financial loss to the council or the ratepayers, it will be open to the auditor to surcharge the councillors or officers of the council who may be responsible for such default. In the case of neglect of duties by boards of guardians, the L.G.B. has in many respects very wide powers, which it will be unnecessary to detail here.

598.—**SEWERS AND DRAINS—Liability to Repair.**—In a terrace of houses, two of them adjoining, the drains throughout run into one another. The property is in Essex. Does this under the Act constitute a sewer? If so, and when repairs are necessary, would the owners or the local authority be liable?—"CANVASSER."

Section 4 of the Public Health Act, 1875, provides that "Drain" shall mean any drain of and used for the drainage of one building only or premises within the same curtilage, and made merely for the purpose of communicating therefrom with a cesspool or other like receptacle for drainage, or with a sewer into which the drainage of two or more buildings or premises occupied by different persons is conveyed. "Sewer" shall include sewers and drains of every description, except drains to which the word "drain," as above interpreted, applies (and with another exception not relevant here). Where the drainage of a row of houses is conveyed to a sewer by one drain, to which each house is connected, that drain will constitute a sewer, and will, therefore, be vested in and repairable by the local authority, even though the sewer is entirely in private property. ["Travis v. Uttley," 1 Q.B., 233 (1893).] The local authority has power to compel owners of property to make a separate drain for each house about to be built. This tends to prevent contests about the vesting of sewers. A drain from two semi-detached houses under one roof, though taking the sewage of two houses, is not deemed to be a sewer. An important qualification of the above rules is introduced by the Public Health Acts Amendment Act, 1890. Where Part III. of that Act has been adopted, the local authority can, in some cases, cast the expense of abating nuisances caused by combined drains on the owners of the property concerned. Sec. 19 of that Act provides, in effect, that where two or more houses belonging to *different owners* are connected with a public sewer by a single private drain, the local authority may, on complaint as to a nuisance arising therefrom, recover the expense of executing any necessary works from the owners of such houses. (See Sec. 41 of the Public Health Act, 1875, as to complaint of nuisance from drains.)

We have thus dealt with this matter generally because our correspondent's query is not sufficiently specific to enable us to deal with it in detail. He will be able to apply the above principles to the circumstances of the case.

THE crematorium at Lawnswood, just outside the boundary of Leeds, on the Otley Road, is so near to completion that only the sanction of the Local Government Board is now required in order that it may be used.

ABOUT BOOKS.

LAW AND LEGISLATION IN 1904.*

THIS is the sixth issue of one of the most useful local government publications we know of. It is a monument of systematic and careful compilation, and should take its place at once as an indispensable work of reference in the office of every local authority, and in the library of every student of local government. The book contains the statutes of the session annotated and explained; a digest of all cases decided in the courts during the year ended September 30, 1904; and the circulars, orders, and other official information relating to the jurisdiction of local authorities issued during the same period. Last session did not witness any heroic attempts at reform in our local government system, but it gave us the Shop Hours Act—a measure that marks a new social experiment—and the Prevention of Cruelty to Children Act, which strengthens and consolidates previous legislation on that subject. Ten other measures deal with education, poor law, public health, and sundry matters of interest to public bodies. These Acts can usually be obtained without difficulty, but it is not always so easy to preserve the collection of official circulars, memoranda, &c.—last year, of an exceptionally important character — which forms one of the most valuable sections of this useful volume. The book, as we have said, should be in the office of every local authority, and every councillor who desires to keep himself informed, first hand, of the legislative and administrative changes that are constantly taking place in the important branch of public life in which he is engaged, should also possess a copy.

THE GERMAN WORKING CLASSES.†

PROFESSOR ASHLEY'S purpose is to meet the argument of those who say that the condition of the German people is such as properly to deter Great Britain from any departure from her present fiscal policy. He seeks to show that the comparison is a far more difficult and dubious affair than is supposed, and that the balance of advantage is not indisputably in favour of this country; and, further, that whatever may be the comparative position of the two countries, Germany has actually witnessed a great advance in the well-being of the masses of her people within the last 25 years—a period during which she has been pursuing a policy of Protection. It is not contended that German progress in general material prosperity has been the result of Protection, the author contenting himself with an endeavour to show that Protection has not been inconsistent with a great advance.

THE REFORMERS' YEAR BOOK‡

THIS is what its title indicates—a ready reference book for social reforms. But in its municipal section it is not so complete as it should be. Mr. G. C. Cope's article on "Municipal Movements" deals only with municipal trading, and even there the statistics are given in such a way that they would not be found very useful. Municipal movements last year were not wholly in the direction of trading, witness that for the extension of local government areas and the application of an efficient audit system. The book as a whole, however, is a very creditable production, and contains the prime facts relating to practically all the social reform movements of importance now in progress in this country.

* "Local Government Law and Legislation for the Year 1904." Arranged and edited by W. H. Dumsday, Barrister-at-Law. (Hadden, Best and Co., 5, West Harding Street, E.C. 10s.)

† "The Progress of the German Working Classes in the Last Quarter of a Century." By W. J. Ashley. Longmans, Green and Co. 1s. 6d. nett.

‡ "The Reformers' Year Book, 1905." Joint editors, F. W. Pethick Lawrence and Joseph Edwards, London, 19, St. Bride Street, E.C. 2s. and 1s.

"DAILY MAIL YEAR BOOK."*

THE one good thing which the *Daily Mail* organisation produces every year is this Year Book, crammed from cover to cover with facts that are reliable and figures that are accurate. The way to test the volume is to try and find some public subject upon which no information is given, and in the endeavour to apply the test to the disadvantage of the Year Book we must admit an ignominious failure.

"THE UNEMPLOYED."

A BOOK on this evergreen problem, written by Mr. Percy Alden, and containing a preface by Sir John Gorst, will be published almost immediately by Messrs. P. S. King and Son. The author was for twelve years resident in South-west Ham, an extra metropolitan district, which may be regarded as the storm centre of unemployment at the present time. He was warden of the University Settlement known as Mansfield House, and for nine years occupied a seat on the Town Council. In the winter of 1893-4 he acted as hon. secretary of the relief works in West Ham, giving evidence on the subject before the Select Committee on Distress from Want of Employment in 1895. He organised a census of the unemployed throughout the whole of West Ham, which resulted in the discovery that some 20 per cent. of the manual workers in all the poorer districts were unemployed—a result which was confirmed by a later census made officially by the Town Council. As hon. secretary of the Guildhall Conference, held in February, 1903, and also a member of the Mansion House Unemployed Committee, he has had great experience of the practical difficulties of this complex problem.

In the autumn of last year Mr. Percy Alden paid a visit to the labour colonies in Holland, Belgium, and Germany, with a view to seeing how far Continental methods might be adopted with modifications in England. The book does not deal so much with the ultimate and final solution of the unemployed problem, as with the practical remedies that have been tried and tested and found more or less successful in other countries. The idea of a system of graded labour colonies is no longer scouted as Utopian, and Mr. Walter Long's suggestion to the Unemployed Committee of a central colony has brought the whole question within the sphere of practical politics.

Both the author and Sir John Gorst (who writes the preface) lay great stress on the possibility of creating a fresh outlet for unemployed labour in the cultivation of the soil and in giving free access to the land, which at present is the exclusive possession of a comparative few.

A USEFUL YEAR BOOK.

THE Hornsey Borough Council is to be congratulated upon the publication of a most useful and handy little Year Book and Pocket Diary for 1905. Amongst other information in this gilt-edged leather-bound volume is a *résumé* of the Council's work during the year, census and tenement tables, particulars of poor, borough, and general district rates; list of councillors; burgesses' roll; overseers of the poor; guardians and officers of the Edmonton Union; area, population, assessable value of the union, &c.; bye-laws, regulations, &c.; Members of Parliament, and other information useful to councillors and guardians. There is also a useful little map, clearly printed, of the County of Middlesex. The book and diary is printed at the *Hornsey Journal* Office, Crouch Hill, N.

BOOTLE CORPORATION YEAR BOOK.—This year's Bootle Municipal Year Book and Diary, which has just been issued, contains a comprehensive and highly-interesting mass of detailed information, and this compact little volume will, like previous productions of its kind, be extremely valuable and useful to members of the Council and others.

* Edited by Percy L. Parker, and published by the Amalgamated Press, London. Price 1s. 6d.

OUR POST OFFICE.

SITE VALUES TAXATION.

THE CASE OF FULHAM.

To the Editor.

SIR,—The correspondent who writes to you on the "case of Fulham" falls into a too common error when he assumes that any conceivable system of taxing site values could enable the taxing authority to realise each year as income the whole increment of capital valne which accrues to owners who do *not* realise. Nobody can both eat his cake and have it. Because, according to some estimate accepted by him, the capital value of sites in Fulham is said to have risen from £2,500,000 in 1886 to £5,235,000 in 1904, he assumes that no less than the whole difference of £2,735,000, or an average of £152,000 a year, might by the adoption of site value taxation have been made "to flow into the local exchequer." At the same time, he admits that the annual value of the covered sites was only £40,000 a year in 1886 and £140,000 in 1904. I suppose he will desire me to add something for an assumed income on the uncovered land, which he says was worth £1,500.000 out of the £2,500 000 in 1886 and £575,000 out of the £5,235,000 in 1904. Let us be liberal and grant him for the purpose of the argnment 4 per cent. on these sums, *i e.*, £60,000 a year at the beginning and £23,000 at the end of the period. Adding this assumed income to the real income, we get a total of £100.000 a year in 1886, gradually increasing to £163,000 a year in 1904. The average is far below your correspondent's £152,000 a year, so that even if he had imposed a tax of 20s. in the £ on site values in 1886, and levied it steadily till 1904, he could not have got in nearly so much as he supposes.

He probably has some confused idea that he could tax the increment of capital value as well as the income, real and assumed, forgetting that if you take away the income the capital value disappears. If your correspondent had property worth £4 per annum now, and it rose to be worth £8 per annum in 7½ years, the rate of interest being unchanged at 4 per cent., he would, as things are, have a capital increment of 10 per cent. per annum during the seven and a half years; but would that enable him to pay £10 a year in taxes at the beginning of the period and £20 a year at the end without getting poorer? Property so taxed would obviously be worth a considerable *minus* figure. To hold it long enough would ruin the richest man in creation. If your correspondent doubts my argument, I hope he will draw up a schedule showing how his average of £152,000 is spread over the eighteen years, and exactly who would pay it, and what its effect on the capital value of Fulham land would be.—Yours, &c.,

E. C.

MUNICIPAL TRADING AND RATES.

To the Editor.

SIR,—Writing under the auspices of the Liberty and Property Defence League on December 9, Mr. R. N. M'Dougall invited your readers to believe that "municipal trading raises rates." "The return," he said, "compiled by Mr. Jas. Carter shows conclusively how profits from municipal trading are raising rates everywhere. Looking through the list of boroughs in Mr. Carter's annual return, we find that those where little or no profit is made have the lowest rates, while those where profits are over 1s. in the £ have the highest."

That and nothing else is the point at issue between Mr. M'Dougall and myself. His proof consisted in the illegitimate method of selecting here and there from the return a case which suited his purpose; he neglected the precantion of testing it as a whole. By way of checking his statements I adopted the simple expedient of taking from the return all the towns which paid 1s. or more from profits and all those which made no profits at all, and found that in the former the average rates were 7s. 2l., in the latter slightly over 7s. 2½d.

In the face of this comprehensive contradiction from the authority to which he himself appealed, Mr. M'Dougall does not venture to reaffirm his original statement. He throws it to the wolves, and seeks to derive a spurious consolation from a deduction which he erroneously makes from my letter that "municipal trading does not reduce rates!"

What I wrote proved nothing of the sort, and Mr. M. is not skilful in the art of trailing the red herring. If he would stick to his point and endeavour to show, in the first place, any connection between high rates and high municipal profits, and, in the second place, the why and wherefore of such connection, some good purpose might be served. As it is, Mr. Carter's return simply disproves the connection, and one can only wish the Liberty and Property Defence League joy of their prize.—I am, &c.,

F. A. B.

GARDEN CITY AND THE UNEMPLOYED.

To the Editor.

SIR,—It has frequently been suggested that the Garden City Company should provide work for the unemployed on its estate near Hitchin, and the directors of the company have been considering the question of how far it would be possible to give such work without creating competition with the existing local supply of labour. It has, of course, been impossible for them to use the company's funds for charitable purposes, and, on the other hand, they do not desire to raise money on a purely philanthropic basis.

They have, however, accepted a voluntary offer made by a lady interested in the unemployed to subscribe £700 in share capital in the company on condition that the money is immediately used to employ men recommended by the Mansion House Committee.

The work which the company will thus be able to put into operation will be in advance of what would be done under ordinary circumstances, and of what is immediately necessary for the purpose of the development of the Garden City Estate. Arrangements have been made with Mr. Long's committee to supply up to 100 men for about three months, and to undertake the expense of providing accommodation and supervising. The first 20 men will be sent down to Hitchin early next week. The Garden City Company will pay the value of the work done to the extent of the above subscription.

It is desirable, however, that the £700 should be supplemented by additional funds subscribed on the same basis, so as to bring up the total amount available for the special unemployed works to £2,000. This would permit over 200 men to be employed on productive and healthy work for at least three months. The directors are willing to grant shares for subscriptions given on the above footing, and will only use the money for paying for the actual work completed. While the money is therefore being subscribed, and is accepted by the directors, primarily on behalf of the unemployed, it must not be regarded as a purely charitable subscription. The charitable funds will be provided by the unemployed committee which is supporting the scheme.

It may be possible for the best men sent out under this scheme to find permanent occupation in the new city, and in recognition of this possibility the Mansion House Committee is making a special selection of men.

I am sure you recognise the importance and urgency of securing productive and healthy employment for the better class of unemployed workmen, and also of relieving some of the great pressure of population in London.

I trust therefore you will give publicity to this letter, so that those of your readers who are interested in this aspect of the unemployed question can consider the desirability of giving the above scheme their support.—Yours faithfully,

THOS. ADAMS,
Secretary and Manager.

First Garden City, Limited,
344-351, Birkbeck Bank Chambers,
Holborn, W.C.

A GARDEN VILLAGE TRUST.

INTERESTING EXPERIMENT NEAR YORK.

DURING the last few days an interesting attempt to contribute to the solution of the housing problem has reached a further stage of development. Some two or three years ago Mr. Joseph Rowntree, the chairman of Rowntree and Co., Limited, purchased 120 acres of land at Earswick, West Huntington, about two miles from the centre of York, and abont a mile from the factory of his company.

On this he has commenced to erect a garden village. Thirty houses have already been built, and are already occupied; while eleven more are in course of erection, for all of which tenants are waiting. In order to provide for the development of the village, and for the establishment of others elsewhere, when suitable opportunities present themselves, Mr. Rowntree has now conveyed the estate to trustees, to whom he has also transferred a considerable amount of invested capital, which, with the accumulating rents of the houses, will form the endowment of the trust.

The plan of the village provides for adequate recreation-grounds. In the deed of foundation, the founder expresses his desire that not less than one-tenth of the land, exclusive of roads, at any time the property of the trust shall be laid out and used as parks, recreation-grounds, and open spaces; and, further, that the houses to be built shall not occupy more than one-fourth of the sites on which they are built. Most of the houses already erected have gardens of about 350 square yards. The houses are not intended solely for those employed at the cocoa works, and, though the object of the charity which has just been constituted is defined as the improvement of the condition of the working classes, the definition of "working classes" in the trust deed is of a very elastic character.

An effort is being made to provide houses which shall be artistic in appearance, sanitary, and thoroughly well built, and yet within the means of working men earning the ordinary wages of unskilled labour. It is felt that, if the experiment is to be a useful contribution to the housing problem, there should be something like a business return on capital, and it is hoped that the nett rental of the honses may amount to about 3½ per cent. on the capital expended on them. Most of the houses already built are let at 4s. 6d. per week, the tenants paying the rates, which amount to about 8d. per week.

They are of various designs, but the following is a description of the type of house which is most sought after:—On the ground floor is a large living room (12ft. 6in. by 20ft. 6in.), with a bay window, and plenty of cupboard accommodation, a small pantry, and a scullery fitted with patent exhaust to carry the steam direct into the flues, thus preventing the discomfort which often arises in small houses on washing day. The bath is fitted with a drop-down lid, forming a table when the bath is not in use. Upstairs there are three bedrooms, each fitted with a fireplace, and there is a large wardrobe on the landing. The walls are plastered internally with adamant cement, which dries very quickly and assumes a smooth hard surface, and is thus more sanitary than the ordinary plaster. All the rooms are fitted with picture mouldings. Gas is supplied throughout the house and city water is laid on.

The foundation deed provides that the administration of the trust shall be wholly unsectarian and non-political, and that there shall always be a rigid exclusion of all influences calculated to impart to it a character sectarian as regards religion or belief, or exclusive as regards politics.

THE Advisory Committee appointed by the West Riding Quarter Sessions to formulate rules and regulations for the administration of the Licensing Act, 1904, has completed the first part of its task.

Official Advertisements.

CITY OF BIRMINGHAM.

SUPPLY OF STORES.

THE Public Works Committee are prepared to receive TENDERS for the SUPPLY of STORES for One Year, ending March 31, 1906, viz.:—Lias Lime. Portland Cement, Drain Pipes. Gullies, Gully Pans, Brown Bricks, Timber. Drysaltery. Castings, Iron and Steel Ware. Clothing, Lamps, Glass, Enamelling, Brooms, Hose Pipe, Rubber Goods, Incandescent Mantles, and Miscellaneous Stores.

Samples and patterns may be seen on application to the Storekeeper at the Lamp Department. Park Street, and the Corporation Wharf, Sheepcote Street. Forms of tender, copies of conditions, and specifications may be obtained, on and after the 2nd inst., at the City Surveyor's Office, Council House, Birmingham, on payment of £1 for each copy, which will be returned on the receipt of a bona-fide tender for the whole or any portion of the stores required.

Samples of goods tendered for must be sent, carriage paid, to the undersigned; the samples of Portland cement, 5lb. in weight, to be delivered by the 14th of January. Tenders must be made out on the forms provided, and delivered at the under-mentioned offices on the 20th day of January, 1905, endorsed "Tender for Stores," and addressed to the City Surveyor, Council House, Birmingham. The tender of any person or firm paying less than the minimum standard rate of wages current in the districts will not be accepted.

The Committee do not pledge themselves to accept the lowest or any tender, and reserve the right to accept portions only of a tender.

JOHN PRICE,
City Engineer and Surveyor.

The Council House, Birmingham.
January 2, 1905.

CITY OF BIRMINGHAM.

SUPPLY OF MATERIALS.

THE Public Works Committee are prepared to receive TENDERS for the SUPPLY of MATERIALS for One Year, ending March 31, 1906, viz.:—Haslingden and Grauite Kerbs, Setts, Crossing Stones, Granite Chippings, Rowley Setts, Flags, Paving Bricks. Wood Paving Blocks, Ragstone, Gravel, Sand, and Slag.

Forms of tender, copies of conditions, and specifications may be obtained, on and after the 2nd instant, at the City Surveyor's Office, Council House, Birmingham, on payment of £1 for each copy, which will be returned on the receipt of a bona-fide tender for the whole or any portion of the materials required. Samples of Materials tendered for must be sent, carriage paid, to the undersigned.

Tenders must be made out on the forms provided, and delivered at the undermentioned offices on the 20th day of January, 1905, endorsed "Tender for Stone, &c.," and addressed to the City Surveyor, Council House, Birmingham. The tender of any person or firm paying less than the minimum standard rate of wages current in the districts will not be accepted. The person whose tender may be accepted will be required to provide approved sureties in sums of £300 each for the due performance of the contract.

The Committee do not pledge themselves to accept the lowest or any tender, and reserve the right to accept portions only of a tender.

JOHN PRICE.
City Engineer and Surveyor.

The Council House, Birmingham.
2nd January, 1905.

MUNICIPAL OFFICES.

A GENTLEMAN wishes to strongly recommend an ex-Articled Clerk (admitted), with exceptional qualifications, for an ASSISTANT CLERKSHIP. Write to Mr. MONTAGUE BROWNE, Northampton.

WANTED, a thoroughly competent General Clerk, experienced in the work of a Town Clerk's or District Clerk's Office. Expert shorthand writer and typist. Salary £100 per annum, rising to £150 by annual increments of £10. Apply, stating full particulars as to age, previous experience and qualification, with copies of not more than three recent testimonials, before 9th January, to U.D.C. (Box 1334), MUNICIPAL JOURNAL Office, 12, Salisbury Square, Fleet Street, E.C.

Official Advertisements.

CITY OF BRADFORD.

ELECTRICITY DEPARTMENT.

SECOND ASSISTANT ELECTRICAL ENGINEER.

APPLICATIONS are invited (subject to approval to the appointment being given by the City Council) for the post of SECOND ASSISTANT ELECTRICAL ENGINEER upon the Central Office Staff of the City Electrical Engineer and Manager, which is engaged upon the design and supervision of extensions, and the control of the generating, distributing, consumers, and other branches of the department's work through the various departmental staffs.

Applications will only be considered from persons who have practical experience of the generation and distribution of energy upon both the H.T.A.C. and the L.T.C.C. systems, are well up in modern general electricity supply practice, possessed of a good knowledge of mathematics and mechanical drawing, and competent to supervise the work of draughtsmen.

The duties will consist of generally assisting and carrying out the instructions of the City Electrical Engineer and Manager.

Canvassing Members of the Council will be a disqualification.

The person appointed will be required to devote his whole time to the duties of the office, and to reside within the City.

Salary £250 per annum.

Applications, in handwriting of the candidate, stating age, experience, and qualifications, together with copies of not more than three testimonials of recent date (which will not be returned), to be sent in time to reach me not later than the first post on Thursday, the 19th January instant, endorsed "Assistant Electrical Engineer."

FREDERICK STEVENS,
Town Clerk.

Town Hall, Bradford.
3rd January, 1905.

LAMBETH BOROUGH COUNCIL.

TO CONTRACTORS AND OTHERS.

THE Council of the Metropolitan Borough of Lambeth are prepared to receive TENDERS for the following Services and for the SUPPLY of MATERIAL for One Year from the 31st day of March. 1905. viz.:—

Removal of Slops from Roads,
Supply of Men. Horses, and Carts,
Cartage of Materials. &c.,
Barging away Dust and Garbage
(for One or Three Years).
Smiths' Works and Repairs.
Wheelwrights' Work,
Removal of House Refuse
(for One or Three Years).

MATERIALS.

Broken Granite	Portland Cement
Broken Flint	London-made Drain Pipes
Gravel	Lime
Ballast	Castings
Sand	Brooms
York Paving	Brushes
Granite Kerb	Oil and Colours
Granite Paving Setts	Ironmongery, Tools, &c.
Tar Paving	

Specifications and forms of tender may be obtained upon application to Mr. Henry Edwards, C.E., the Borough Engineer, at 346, Kennington Road, S.E., between the hours of 10 and 4 (Saturdays 10 to 1).

Sealed tenders addressed to the Council, and endorsed "Tender," must be delivered at the Town Hall not later than 5 o'clock p.m. on Thursday, the 26th day of January, 1905.

The Council do not bind themselves to accept the lowest or any tender, nor as to quantity required for the period.

By order.

H. J. SMITH,
Town Clerk.

Town Hall, Kennington Green, S.E.
January, 1906.

WANTED, Appointment as Storekeeper, &c. (or Assistant), to Public Institution. Abstainer. Age 30. Nichols, Regent Street, Leighton Buzzard.

JUNIOR CLERK, 20, seeks Re-engagement, One year's experience. Good references. Write "Dinn," Summerhill, Margate Road, Ramsgate.

Official Advertisements.

ST. PANCRAS BOROUGH COUNCIL.

TO PRINTERS, BOOKBINDERS, AND ACCOUNT BOOKMAKERS.

TENDERS are invited for the SUPPLY of PRINTING for all Departments of the Council during the Three Years ending 31st March, 1908.

TENDERS are also invited for the SUPPLY of BOOKBINDING to all Departments of the Council during the Three Years ending 31st March, 1908.

TENDERS are also invited for the SUPPLY of STATIONERY to all Departments of the Council during the Three Years ending 31st March, 1908.

Tenders, sealed and endorsed "Priuting Tender," "Bookbinding Tender," or "Stationery Tender," as the case may be, are to be delivered at the Town Hall, Pancras Road, N.W., not later than 5 o'clock in the afternoon on Friday, the 10th February, 1905.

The contracts for the Printing, Bookbinding, and Stationery are separate and distinct, and the contractors will be required to find satisfactory security for the due performance of the contracts.

The Council do not bind themselves to accept the lowest or any tender, and reserve to themselves the right to accept a tender in whole or in part at their discretion, and the person or firm whose tender may be accepted, in whole or in part, will be required to enter into a contract with the Council accordingly.

The forms of tender, on which alone proposals will be received, may be obtained free of charge on application to the undersigned.

The Samples of the Printing, Stationery, Books, and other documents required, can be inspected at the Town Hall, Pancras Road, any day from the 9th to the 16th January, 1905, inclusive, during the office hours of 9 a.m. to 5.30 p.m., except on Saturday, when the hours are from 9 a.m. to 1 p.m.

The contractors will be required to pay to all their employees who may do work under these contracts wages at such rates and shall observe such conditions of employment as are mutually agreed upon by the associations of employers and employees, and as in practice obtain in the respective trades and for the description of work covered by the contracts.

Tenders will be liable to rejection in which any alteration is made in any of the conditions, schedules, memoranda, or notes.

The contracts to be entered into by the persons whose tenders are accepted will be prepared at the expense of the Council.

By order.

C. H. F. BARRETT,
Town Clerk.

The Town Hall,
Pancras Road, N.W.
3rd January, 1905.

PARISH OF LAMBETH.

GENERAL RELIEVING OFFICER.

THE Guardians of the Poor of the Parish of Lambeth intend to Appoint a GENERAL RELIEVING OFFICER, at a salary of £150 per year, subject to the statutory deduction under the Poor Law Officers' Superannuation Act, 1896.

The officer appointed must be married, and devote his whole time to his duties, and must reside in the Parish of Lambeth. Limits of age, 30 to 45 years.

Candidates must have had previous experience in dealing with lunatics.

Printed form of application will be sent on receipt of stamped addressed foolscap envelope.

Application is to be made by means of such form and in no other manner, and must be sent to me on or before Saturday, the 21st instant.

Canvassing the Guardians, directly or indirectly, is strictly forbidden, and will be deemed a disqualification.

By order of the Board.

R. GREENWOOD,
Acting Clerk.

Guardians' Board Room and Offices,
Brook Street, Kennington, S.E.
4th January, 1905.

INSTITUTE of MUNICIPAL TREASURERS and Accountants' Examinations, June, 1905. Gentlemen coached in class or by correspondence in Law Section. For terms address "Coach," MUNICIPAL JOURNAL Offices, 12, Salisbury Square, Fleet Street, E.C.

Official Advertisements.

URBAN DISTRICT OF CLECKHEATON.

LEDGER CLERK.

THE Council for the above District invites applications for the appointment of LEDGER CLERK in the Clerk's department, at a salary of £80 per annum, rising by increments of £5 to a maximum of £100.

Candidates should have had experience in a similar capacity in connection with Urban District Council, or borough accounts (either in the office of Clerk to the Council, or that of an Accountant), including those relating to gas, water, and electricity undertakings, and preference will be given to those possessed of the latter qualifications.

Applications on forms to be obtained at my office (accompanied by copies of three recent testimonials, and endorsed "Ledger Clerk"), must reach me not later than 4 o'clock on Saturday, the 14th January, 1905.

JOHN H. LINFIELD,
Clerk to the Council.

Town Hall,
Cleckheaton.
22nd December, 1904.

CITY OF LONDON COLLEGE
ACTING IN CONJUNCTION WITH
THE LONDON CHAMBER OF COMMERCE.
WHITE STREET AND ROPEMAKER STREET, MOORFIELDS, E.C.
(Near Moorgate Street and Liverpool Street Stations.)

Principal—
SIDNEY HUMPHRIES. B.A., LL.B. (Cantab).

LENT TERM commences January 9th.

DAY COMMERCIAL SCHOOL, one year's course fits students (both sexes) to take positions in Commercial Life.

The course includes Typewriting, Shorthand, Bookkeeping, Office Routine, Geography, French, German, and Spanish.

Perfectly equipped Chemical, Biological, Physiological, and Physical Laboratories.

Students are prepared for B.A., B.Sc., Pharmaceutical, Primary, F.R.C.S., and Conjoint Board Exams., Civil Service, the Institutes of Accountants, Actuaries, Bankers, Surveyors, and other Examinations, for all of which special Courses are arranged.

Drawing, Painting, Design, Embroidery and Wood Carving.

Special Saturday Courses preparing for the Matric. and Inter. and Final B.A. and B.Sc.

Lectures and Entertainments are given every Thursday Evening.

Prospectuses and all other information gratis on application.

DAVID SAVAGE,
Secretary.

EATON & KNAPP,
BOILER SETTERS & FURNACE BUILDERS,
Repairs in Boiler Brickwork & Dust Destructors of all kinds.
ESTIMATES FREE.
23, CLACTON ROAD, WALTHAMSTOW.

SULPHUME
(SULPHUR DIOXIDE)
FOR
ROOM DISINFECTION

As adopted by the WAR OFFICE, and numerous HOSPITALS, CORPORATIONS, and other SANITARY AUTHORITIES.

MAKERS AND PATENTEES,
A. BOAKE, ROBERTS & CO., Ltd.,
STRATFORD, **LONDON,** *ENGLAND.*

THE BEST JUDGES OF CIGARS
Now obtain their supplies at
BENSON'S, 61, St. Paul's Churchyard, London.
Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

GUARANTEED £2 15s. PER CENT. STOCK.

Created under the IRISH LAND ACT, 1903 (Act 3 Edw. VII. ch. 37).

INTEREST PAYABLE HALF-YEARLY, ON THE 1ST JANUARY AND 1ST JULY.

ISSUE OF £6,000,000 STOCK.

MINIMUM PRICE £88 10s. PER CENT.

First Dividend, being Six Months' Interest, payable on the 1st July, 1905.

THE Governor and Company of the Bank of England Give Notice that they are authorised to receive TENDERS for £6,000,000 of the above-mentioned STOCK, to be created under the Irish Land Act, 1903, 3 Edw. VII., ch. 37.

The Stock will be in addition to, and will rank pari passu with, the Guaranteed £2 15s. per cent. Stock already existing.

The Stock consists of perpetual annuities, yielding dividends at the rate of 2¾ per cent. per annum, payable half-yearly, on the nominal amount of the capital. It will not be redeemable until the 1st November, 1933, but on and after that date may be redeemed at par, together with the payment of all arrears of interest, after three months' notice published in the "London Gazette" and in the "Dublin Gazette."

The dividends on the Stock are paid out of the income of the Irish Land Purchase Fund, and if that income is insufficient will be charged on and paid out of the Consolidated Fund of the United Kingdom, or the growing produce thereof.

The Books of the Stock are kept at the Bank of England and at the Bank of Ireland, and the arrangements in regard to the transfer of stock, the transmission of Dividend Warrants by post, and the issue and re-inscription of Stock Certificates are identical with those existing in the case of Consols.

Tenders must be delivered at the Chief Cashier's Office, Bank of England, before 2 o'clock on Tuesday, the 10th January, 1905, and a deposit of £5 per cent. on the nominal amount of the Stock tendered for must be paid at the time of the delivery of the tender. The deposit must not be enclosed in the tender.

Where no allotment is made the deposit will be returned, and, in the case of partial allotment, the balance of the deposit will be applied towards the first instalment.

Tenders must be for even hundreds of Stock, and may be for the whole or any part of the Stock in multiples of £100. Each tender must state what amount of money will be given for every £100 of Stock. The minimum price, below which no tender will be accepted, has been fixed at £88 10s. for every £100 of Stock. All tenders must be at prices which are multiples of sixpence. In the event of the receipt of tenders for a larger amount of Stock than that to be issued, at or above the minimum price, the tenders at the lowest price accepted will be subject to a pro rata diminution.

The dates on which the further payments will be required are as follows:—

On Friday, the 20th January, 1905,
so much as, when added to the deposit, will leave Sixty-five Pounds (sterling) to be paid for each hundred pounds of Stock.
On Friday, the 17th February, 1905, £20 per cent.
On Friday, the 10th March, 1905, £20 per cent.
On Friday, the 7th April, 1905, £25 per cent.

The instalments may be paid in full on, or after, the 20th January, 1905, under discount at the rate of £2½ per cent. per annum. In the case of default in the payment of any instalment at the proper date, the deposit and the instalments previously paid will be liable to forfeiture. Scrip certificates to bearer will be issued in exchange for the provisional receipts.

As soon as these Scrip Certificates to bearer have been paid in full, they can be inscribed (i.e., converted into Stock); or they can be exchanged for Stock Certificates to bearer in denominations of £100, £200, £500, and £1,000, without payment of any fee, provided such exchange be effected not later than the 1st June, 1905.

Tenders must be made upon the printed forms, which may be obtained at the Bank of England, at the Bank of Ireland, and at any of the Branches of those Banks; and of Messrs. Mullens, Marshall and Co., 4, Lombard Street, London, E.C.

BANK OF ENGLAND.
3rd January, 1905.

A HISTORY OF THE ENGLISH POOR LAW. . .

A RE-ISSUE OF
A STANDARD WORK
AT ONE-THIRD OF
THE ORIGINAL PRICE.

Vols. I. & II. NICHOLLS. 10s. 6d. net.
Vol. III. MACKAY. 7s. 6d. net.
Or the 3 vols. complete,
15s. net.

P. S. KING & SON,
ORCHARD HOUSE, WESTMINSTER.

The Cream of Cocoas.
EPPS'S
Contains all the nutriment
COCOA
of the Choicest Nibs.

MUNICIPAL JOURNAL
FRIDAY, JAN. 6, 1905.

NOTES AND COMMENTS.

Crewe and the Railway Company.

WE are glad to see that the Crewe Town Council is making a stand against the presumption of the London and North-Western Railway Company. Many of these large combinations imagine they have a right to dictate and dominate the municipal government of towns in which their works are situate. A Bill which the London and North-Western Company is promoting next session contains a clause which would empower it to break open the streets of Crewe, to lay, or relay, or repair its gas mains. Public convenience and public control are to be at the mercy of the railway company, which would, for all practical purposes, open the streets for traffic, or close them, as it pleased. The Town Council could not come to any other decision than that of opposing the Bill. But it is doing something more. It is writing to the railway company, vigorously protesting against the Bill, and informing the company that it is not prepared to grant any permanent rights in the streets to the railway company as a gas company. The council adds that all future breaking-up of the streets for gas purposes must be done by Corporation officials at the company's expense. It is also pointed out that, while in two, or at the most three, instances, the company has asked permission to break up the streets, in numerous instances it has done so without permission, and the council declines to allow this to be continued.

Landlords and Economics.

SIR ROBERT GIFFEN has an article in this month's *Contemporary Review* which is curiously inconsistent for so practised a writer. Because local expenditure has increased, he argues, local authorities must necessarily be extravagant, and he ignores the fact that he has already disproved his own contention by enumerating a long list of causes—satisfactory causes—that have contributed towards the increased expenditure. We do not think Sir Robert Giffen should generalise in this fashion unless he advances some specific proof in support of his statements:—

> When all is said, however, it remains quite certain that in this particular branch of expenditure we have to do with a real disease of local government; with an expenditure that is partly extravagant and unnecessary, because local authorities are frequently bad managers, even where they are not corrupt. They spend money on what is not really wanted; they spend more than they ought on what happens to be necessary; they incur liabilities and burden the future with a light heart.

But Sir Robert does not attempt to prove that local authorities are bad managers, that they are corrupt, and that they are extravagant and financially light-hearted. Like the Industrial Freedom League, he takes it for granted, which is not an impartial way of dealing with a question. If we are in the frying-pan, however, Sir Robert's remedy would at once precipitate us into the fire. He suggests that local finance would be "improved" if there were infused into our present system of having the local bodies elected by the ratepayers, each person being counted as equal, "a system of representation according to interest, the chief landlords of each district or town having a special representation." This is our old friend, "Shall companies vote," once again, with the ground and other landlords invited to the happy party. We agree that the local debt would not increase with the rapidity it does now if the municipalities were dominated by the company and landlord interests, as they would be were Sir Robert's suggestion adopted. The increase would not take place because, instead of operating remunerative public services through the municipalities, the companies and the landlords would operate them themselves, charge high fees for the services they performed, and put the profits into their own pockets. Sir Robert would have some ground for talking about corruption then! There is this other point, however, that the money would still be spent; but it would cost the ratepayers more in the spending of it. In Sir Robert's own words, "municipal borrowing, where borrowing is necessary, does not touch upon the resource of credit any more than would the borrowing of private traders, whether companies or individuals, by whom the work must otherwise be done."

The "Daily Mail" and West Ham.

IT is amusing to see how the *Daily Mail* is endeavouring to cast upon the shoulders of the municipality the blame for the abnormal distress at present prevailing at West Ham. According to the paper's financial expert, it is all, or nearly all, due to "free and easy borrowing methods," and investors are warned to be careful lest they throw their money away. The allusion is, of course, to the high rates at West Ham, as these are the only channels through which financial maladministration could impose hardship upon the inhabitants. An analysis of West Ham's rate of 9s. 10d. in the £, however, conclusively proves that no municipal trading charges—"reckless borrowings" are always for "trading" purposes—are included in the levy. This is how West Ham's rate of 9s. 10d. in the £ is made up:—

	s.	d.
Poor Law and Cemetery	2	1¼
Borough	0	6¾
Watch	0	5¾
Education	2	8¼
Library and Museum	0	1
General District	4	0
	9	10

One of the reasons why West Ham's rates are high is that the borough did not start municipal trading enterprises until very late in the day. But even under the present circumstances, the profits from the electric lighting undertaking are this year reducing the total rate by 1¾d. in the £. In other words, had there been no municipal trading in electric lighting at West Ham, the rates this year, instead of being 9s. 10d. in the £, would have totalled 9s. 11¾d. So that part of the "free and easy borrowing" of which the *Daily Mail* writer complains has this year had the effect of reducing the rates by nearly twopence in the £. We do not think that the ratepayers will complain of financial maladministration of this description. Even the tramways, which are a recent municipal institution at West Ham, will next year relieve the rates. And this will be the result of more "free and easy borrowing methods"!

The Duty of a Chairman.

MR. JAMES G. MONRO, the Town Clerk of Glasgow, has, in response to questions raised at a recent meeting of the City Council, prepared an interesting "opinion" as to the powers of a chairman at a meeting of the Corporation. Mr. Monro points out that the powers of a chairman of the Corporation are derived not only from the Standing Orders, but also from the common law of the country. Standing Orders are merely for the purpose of regulating the procedure of the meeting. They direct in what manner the business is to be conducted, and, so far as they are not unreasonable or contrary to law, they must be observed by, and be binding upon, the members of the body which has made and adopted them. Apart altogether from Standing Orders, the chairman, in regulating the proceedings of a meeting, is bound to exclude all irrelevant questions or matters from being put or discussed at the meeting, and to allow only such business to be transacted as, in his opinion, is competent. The Standing Orders adopted by any body in no way modify or circumscribe the common law rights, powers, and duties of the chairman, and if any point not provided for in those Orders arises in the course of a meeting, it must necessarily fall to be determined by the chairman under his common law rights. The only remedy in cases of obvious wrong being committed by a chairman is for a person aggrieved to take such proceedings at law as he may be advised are appropriate to the circumstances of the particular case. So high, however, is the authority of the chair in matters of regulation and procedure, that it cannot be overborne by any mere resolution or vote of the Corporation. The proposition that any question or notice of motion submitted by a member of the Corporation, whatever the character or subject of it may be, must be read or allowed to be put by the chairman to the meeting, is absolutely untenable. No such right, either at common law or by statute, or under Standing Orders, exists, and no chairman could, or should, be compelled to be the medium of putting what he regards as incompetent, irrelevant, or libellous interrogatories or notices of motion. This is not only law, we think, but commou sense.

Tramways versus Railways.

THE *Glasgow Herald* a few days ago published an interesting article showing how railways are suffering from the development of the tramway industry. The figures, however, were not new, aud the list of lamentations by railway chairmen and directors was amusing. There was nothing very startling in the article until the last paragraph was reached, when we were gravely told by the writer that "the serious feature from the economic point of view is that the competition is to such a large extent provided by municipal enterprise, and is practically supported by the rates, whilst the railway companies have only their own earnings with which to meet their capital charges." If this means anything at all, it is that municipal tramways lose money and have to go upon the rates. What, however, are the facts? An analysis of the Board of Trade accounts from which the *Glasgow Herald* writer quotes shows that in respect of tramways owned by local authorities a nett return of 6⅜ per cent. was earned on the capital invested. So that this particular form of enterprise, contrary to being "practically supported by the rates," actually supports the rates! The writer of the article did not delve sufficiently far into the facts, but it is a pity that after a column and a half of what may be called subsidiary figures he forgot to consult the really vital ones.

The Success of Hull.

HULL'S successful municipalisation policy has drawn forth the fervid admiration of Mr. W. C. Hamm, the United States Consul in the northern city. In a paper on "The Public Utilities of Hull," which Mr. Hamm has forwarded his Government, the local municipal institutions are referred to in terms of the highest praise. First, there is a reference to the recently completed telephone system, which, it is pointed out, "has brought a speedy reduction in rates." It is also explained that under the terms of the wayleave agreements "other cities can now demand the same telephone rate as is made in Hull." "Thus the competition in this city may prove beneficial to every city in England," adds our American commentator, and he would have exactly hit the mark if he had added, "of the same size as Hull." In respect to the municipal services generally, Mr. Hamm goes into the accounts, and comes to the following conclusions:—

> In each instance, then, with the exception of the crematory and the baths, the municipalisation of public utilities in Hull has resulted in a profit to the city treasury. The profit, it is true, is small, but it must be remembered that the charges for these public services are extremely low.
>
> A ride on the street cars in any direction to the end of the line costs only 1d., an exclusive telephone service in a private house costs £5 a year, and in a business office about £6 a year. Gas is sold at 2s. 6d. per thousand feet, and electricity at 4½d. per unit.
>
> The object is not so much to make a profit for the city out of these utilities as to furnish the public with the best service at the lowest possible price. Viewed in this light, municipalisation in Hull can be pronounced a success.

Reports like this will do much to dispel the misunderstanding that exists in many quarters on the other side of the Atlantic by reason of the interested misrepresentation that has been made by private companies and their supporters.

POOR LAW OUTLOOK.

Striking Differences in the Policies Adopted by two English Boards of Guardians. Betrayal of the Poor and of the Ratepayer at Leicester, as Shown by the District Auditor. Encomiums for the Bradford Board on the Good Results of its Policy. Mistaking a Wave of the Tide of Pauperism. Guardians and their Inability to Relieve Unemployed. Reform Needed.

What is "Lax" Relief?

To give specific instances of either "lax" or "strict" out-door relief is always a thankless, and often dangerous, task. But two such excellent illustrations come to hand this week of extreme divergence of policy which ought to be made widely known. The instances of lax out-door relief, three in number, come from distressed Leicester. A man was on the labour test, and his wife earned from 2s. 6d. to 6s. per week. The man was a bricklayer, but was unable to get a situation, owing to his former dissolute habits. He had been convicted of assaulting his wife, and sent to prison for three months. He had been on the labour test for 18 months, and appeared to regard the test as a permanent situation. Was there ever a clearer case—given on the evidence of the district auditor (Mr. Arthur H. Cunynghame)—in which a man should have been sent to the workhouse? And the auditor rightly took the Leicester Guardians to task at their last meeting for not taking that course.

❦ ❦ ❦

Out-Relief Run Mad.

THE second "lax" case given on the evidence of the auditor was one in which relief was granted to a family. At the ninth week the family earned £1 5s. 6d., and the relief granted was 8s. 4d. This relief continued each week, though in the tenth week the family earned 18s., the eleventh week £2 2s. 9d., the twelfth week £2 2s. 2d., the thirteenth week £2 2s. ½d., the fourteenth week £2 0s. 6½d. In the third instance the earnings of the family amounted to £1 7s. 9d. per week, but the man was placed on the labour test and received 6s. a week for two weeks. Then he received 9s. week. He then went off the labour test for eight weeks. Then he went on again, and though the family earnings amounted to 14s. a week he had relief at the rate of 10s. a week.

❦ ❦ ❦

And the Result.

IT would be difficult to use too strong words of condemnation on these *primâ facie* cases. The second case is made all the worse, inasmuch as the man had been on the labour test for over a year and a half, during which a strong effort might have been made to induce him to seek another situation. The Board is now considering these matters, and it will be interesting to hear the reply. If it be a fixed policy of the Leicester Guardians thus to give indiscriminate relief, it no doubt accounts largely for an increase in out-door relief during the last ten years of over 100 per cent. In 1895 the out-door relief for the whole year amounted to £13,637; for the *half-year* ended Lady Day, 1904, the amount of relief was £13,986.

❦ ❦ ❦

Strong Disapproval.

AND the castigation of the guardians is administered by the *Leicester Daily Post* in no uncertain manner. Presuming these statements of the auditor to be true, it asks:

> What have they been made guardians for, if not to ascertain the entire facts of a case before they play the Lord and Lady Bountiful? And what are their relieving officers for, if not to discover and keep them posted up in the ways and means of the applicants for relief? As it is, the ratepayers owe a debt of gratitude to Mr. Cunynghame for going to the root of at least three cases, and explaining the fashion in which it is alleged the public funds have been frittered away—if not worse.

The frittering away of the public funds, however, is but the less evil. The greater is the degradation and demoralisation which follow such indiscriminate action.

It does not improve matters to argue—as did one guardian at the last meeting of this board—that the members were unable to discover the figures cited by the district auditor.

Unfathomable Wiles of the Beggar.

BEFORE leaving this subject of "lax" administration we will give a good cognate instance of the wiles of the professional beggar. It was told by the Bishop of Manchester (Dr. Knox) the other day. At first when he presented tickets for the Salford Church Army Labour Home to the ordinary beggar the reply was, "nothing would please me better than to go into the home, only in the next street I have a wife and five children, and the home will not take them in." "Now," the bishop continued, "I look at him with as friendly an eye as I can, and say I would gladly do something for him only I cannot keep his wife and five children. Whereupon he assures me that he has not a wife and five children, and then, of course, I produce the ticket for the Church Army Home. I have, however, very little reason to suppose that he goes there. The wiles of the professional beggar are unfathomable." And guardians cannot too fully realise how easy it is to breed this parasite of society.

❦ ❦ ❦

"Scientific Nicety" at Bradford.

IT is with more pleasure that we turn to the Bradford Board of Guardians and the results of its policy. That policy and those good results have been outlined in our columns more than once. The Local Government Board inspector for the district (Mr. P. H. Bagenal), at the last meeting of the guardians, went so far as to say that they had brought their administration to a "scientific nicety." Referring to the lack of employment and distress which had been prevalent during the last few months, the inspector said he thought the attitude the board had taken up was a right one, and was thoroughly sound. They were perfectly right in upholding the main principles of the Poor Law. This policy, our readers know, has resulted in great reduction in the number of out-door relief cases, and in a more liberal treatment of each case. The guardians also deal very generously with the in-door poor, who are almost entirely either sick, imbecile, feeble, or infirm.

❦ ❦ ❦

The Thorn with the Rose.

BUT it is only fair to mention that the inspector had criticisms to offer. He deprecated the overcrowding of the labour shop (the chopping-shed). He entered the shed during his inspection, and he was bound to say that he came out in double quick time. There was an enormous number of men in the place, which was a wretched little shanty, and the heat and want of air were such as would have made an end of him in a very short time. It would not be very easy to find proper accommodation for labour at the workhouse, the site not being very large, but he thought they should provide better accommodation than existed at present. The genial and able chairman of the Board (Mr. F. H. Bentham) admitted the chopping-shed was in a wretched place, and we trust that this black speck will be moved from the Bradford Board's fair escutcheons.

❦ ❦ ❦

Guardians' Powers and the Unemployed.

SHOULD guardians be permitted to grant relief in cases of mere unemployment? The question is one which has been answered in the affirmative by Poplar and other boards of guardians for a good many years. The Chorlton Board has now come to a similar answer. A committee has gone into the whole matter, and at the last meeting of the board its recommendation was adopted:—

> To remind the Local Government Board that in the 52 years which have elapsed since the issuing of the Order, considerable changes have taken place not only in the general conditions of life of the poorer classes, but also in the qualification for the office of guardian, and in the mode of election of boards of guardians, who to-day are more directly in contact with and responsible for the proper carrying out of their duties to the ratepayers than were the guardians of 1852.

But a much bigger reform than this is needed for dealing with the unemployed to-day.

❦ ❦ ❦

A Bigger Scheme on Trial.

MR. WALTER LONG'S Central-Committee-for-London scheme is an attempt to deal with the matter in a bigger way. Is this effort going to be a success? The objects are good, but the difficulty is to carry them out. Thorough discrimination in relief of any kind is a difficult matter. Already it is reported this week that the Battersea authorities have resolved to wash their hands of Mr. Long's scheme. The grounds on which they have acted amount to a charge that the distribution of the money sent to the Central Committee has been injudicious, that the objects of the committee have not been respected, and that its action has been gravely detrimental to the poor. But it is easy to become impatient of results in a movement of this kind. If the Central Committee confines its attention to giving relief in the form of work we need not fear its failure. Large schemes working over large areas are wanted to deal with the problems of unemployment. Legislators will then begin to see more clearly what are the impediments which get between the willing-to-work and the willing-to-buy.

❦ ❦ ❦

A Point in Rating Law.

A REPLY from the Local Government Board on an important point in rating law was received at the last meeting of the Pontefract Board of Guardians. Some months ago the District Auditor (Mr. C. Moresby White), at the request of the overseers of Fairburn and Ferryfrystonl amended the clerk's statement of parochia, balances, and calculated the amount of rate actually due from Fairburn and Ferryfryston on the basis of a supplemental valuation list, which had been granted on an appeal by the Fryston Coal and Colliery Company, which claimed a reduction of its assessment on the ground of the stoppage of its works through the recent long strike. The board, acting on the advice of the Clerk (Mr. T. J. Amies), appealed against Mr. White's decision, and argued that its precept to the overseers was properly based upon the valuation lists actually in force at the date of its issue.

❦ ❦ ❦

Auditor Entirely Wrong.

IN its reply, the Local Government Board states that it finds the district auditor's position untenable in law, and directs that his alterations shall be excised and the original figures restored. The appeal of the Colliery Company, the Local Government Board's letter declares,

> must be regarded as having begun and ended with the Assessment Committee; and, as contended by the clerk, the reduction of the assessment of their property by a supplemental list furnishes no legal ground for any reduction or allowance in respect of any rates levied before that came into force.

This is an important and signal victory for the guardians.

❦ ❦ ❦

Alarmist Cries.

SOME of our readers are desirous to know if the increase in the ratio of paupers to population in London, as shown in "Poverty in London," is a cause for alarm. According to the last annual local taxation return, a nett expenditure of £12,133,478 was borne by the rates and various grants during the year 1902-3. The amount spent on the relief of the poor has increased to that sum from £5,208,027 in 1843, and the rate per head has increased by 1s. 0¾d. But the extent of pauperism is less, for the mean number of paupers of all classes decreased from 1,033,000 in 1869-70 to 802,000 in 1901-2, or, relatively to population, from 46 per 1,000 to 24·6 per 1,000. It appears that pauperism in London has again reached 28 per 1,000, but, though this is unfortunate, it constitutes no real cause for alarm.

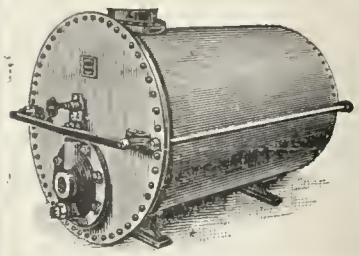
HEATING OF BUILDINGS & HOT WATER SUPPLY

FROM LIVE OR EXHAUST STEAM.

The Latest and Best Appliance is

ROW'S PATENT

CALORIFIER



Storage Calorifier for Baths.

Combined with AUTOMATIC STEAM CONTROL (Royles' Patent)

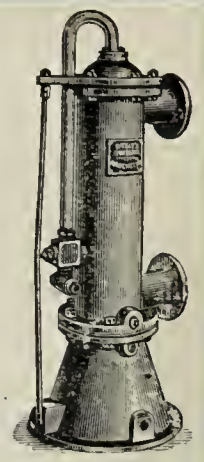
Adopted by the Metropolitan Asylums Board, London County Council, Manchester, Liverpool, Glasgow, Edinburgh Corporations, and others, for Bath Supply.

COPIOUS SUPPLY, UNIFORM TEMPERATURE.

ROYLES LIMITED, IRLAM, near Manchester.

ALSO MANUFACTURERS OF

Feed Water Heaters, Condensers, Evaporators, Steam and Gas Kettles, Syphonia Steam Traps, Reducing Valves, Oil Separators, Exhaust Heads, Boiler Mountings, &c., &c. Price and full particulars on application.



Vertical Calorifier for Hot Water Circulation.

The REAL WATER PAINT.

. In .
70 Colours
All of which are unaffected by Light, Heat, or Damp.

Many will stand Lime.

HALL'S Sanitary Washable Distemper

PATENTED.

The Cleanest, Cheapest, and most Artistic Wall Covering.

Sold in small tins and Iron Kegs ready to mix with water. Applied with a Whitewash Brush. Send for Sample and New Shade Card to the Manufacturers,

Used with greatest success in Institutions, Hospitals, Public Buildings, Halls, Staircases, Drawing and Dining Rooms, and for inside and outside of temporary Buildings.

SISSONS BROTHERS & CO., Ltd., Varnish, Paint, & Colour Manufacturers, HULL.

London Office—199B, BOROUGH HIGH STREET, S.E.

DIALITE

THE STANDARD CABLE FOR ALL PURPOSES.

THE ST. HELENS CABLE CO., Ltd., WARRINGTON.

IN PREPARATION.

Demy 8vo., cloth gilt, 3s. 6d. Post free, 3s. 11d.

THE

MUNICIPAL YEAR BOOK

For 1905.

COMPLETELY REVISED.

The new issue has been brought UP-TO-DATE

CONTAINS

MANY NEW FEATURES.

It is undoubtedly the

MOST VALUABLE MUNICIPAL WORK of REFERENCE published.

Comprising a Budget of information on municipal matters not elsewhere available.

*** *Full particulars, with specimen pages, will be sent on application to the Manager.*

LONDON: EDWARD LLOYD, Limited, 12, SALISBURY SQ., E.C.

ELECTRICITY SUPPLY.

Educating the Public to the Uses of Electricity. The Need for Municipal Advertisement. Lessons from the Year's Electrical Doings at Derby and West Hartlepool.

LAST week we gave a general summary of the results of the Derby Corporation electricity undertaking for the financial year ended in 1904, and we return to the subject to supplement the particulars which then appeared. The amount given as revenue included a balance carried forward for stock in hand amounting to £1,075, and in the expenditure a sum was put down for a balance of a similar kind of the preceding year. Omitting these items, which in no way concern the trading results of the twelve months in question, the receipts appear as follow:—

	Units.	Yielding.	Per unit.
Private consumers took...	1,215,331	£16,855 =	3·329d.
Public lamps consumed...	275,280	2,815 =	2·454d.
Interim total... ...	1,490,611	£19,670 =	3·167d.
Rentals for meters and motors		1,053 =	·170d.
Rents and interest received		122 =	·081d.
Sales and repairs of lamps, &c.		383 =	
Total revenue for year		£21,228 =	3·418d.

The output for private supply has increased by 220,225 units, but public lighting has diminished by 17,232 units, leaving the nett increase in sales equal to 202,993 units. The receipts from private supply are greater by £1,879, from public lighting by £77, and from sundries by £238, making the total receipts £2,194 in excess of the previous year. Whereas the average private selling price has fallen by ·283d. per unit, it has increased by ·207d. for the portion sold for public lighting. The average of the current sold has been reduced by ·135d. per unit, but as the sundries are greater by ·005d. the nett result is ·130d. only less than before.

THE improvement in the surplus is partly owing to the reduction in expenditure on generation, &c., but to a greater degree to the capital charges being spread over a larger number of units. Thus the expenditure has been reduced by ·094d. per unit, and capital charges by ·187d. per unit, making a total of ·281d. per unit. The revenue having fallen by ·130d. per unit, leaves ·151d. on each unit greater surplus. And these figures have been attained without any change in the class of business, at least without the addition of a traction load; but Derby is one of the places where with a single phase alternating system a great deal has been done in the development of a motor load with entirely successful results. The rates have been fixed so as to encourage this department. They are arranged to discriminate between those used intermittently and those in all-day use. For the former the tariff is 3d. to 1d. per unit, and for the latter a flat rate of 1¼d. Heating is given the same advantages as motive power. The lighting rates are 6d. and 3d. on the maximum demand system, with an alternative of 4¾d. to 4d. on a sliding scale based on quantity. The public lamps pay £22 10s. each for all-night arcs, and 33s. for 16 candle power incandescents. The plant capacity is 2,200 kilowatts, upon which the greatest load in the last financial year was 1,300 kilowatts. There were 108,000 8-candle power lamps connected to the mains, with 79 arc and 657 8 candle power incandescent lamps for public lighting.

❦ ❦ ❦

Capital Expsnditure and Revenue.

IN the expenditure there are two special items which in the published accounts appear in the nett revenue. One of these is bank charges, which has been included with interest charges, while the other, stamp duty, is treated as a portion of the management costs. The allocation of the revenue on this basis was as follows:—

	Amount.	Per unit.
Works cost	£7,020 =	1·130d.
Rates, taxes, and management	2,101 =	·339d.
Total cost...	£9,121 =	1·469d.
Public lamp maintenance	720 =	·115d.
Gross cost	£9,841 =	1·584d.
Interest charges, &c. ...	4,898 =	·789d.
Sinking fund and repayments	4,867 =	·784d. } 1·573d.
Total actual cost of units sold	£19,606 =	3·157d.
Nett surplus for year ...	1,622 =	·261d.
Revenue in all for year	£21,228 =	3·418d.

The capital expenditure at the end of March last included expenditure under the following heads:—

Lands	£8,114
Buildings	21,996
Machinery	68,751
Mains and services	61,529
Transformers and motors	16,765
Meters	7,619
Electrical instruments	1,436
Various	3,176
Total capital invested ...	... £189,386
Loans outstanding	133,520
Amount repaid	25,849

❦ ❦ ❦

Employment of Small Units.

THE details of the accounts at West Hartlepool bear a curious resemblance to those at Derby, although in the former case the totals are considerably less than half those in the latter. The work's cost is 1·141d., compared with 1·130d. per unit, and the receipts 3·011d., against 3·418d. per unit. Although the output is so much less, the capital charges are 1·537d., against 1·573d., as shown above, from which it would appear that the alternating system at Derby does not possess any advantage on the score of first cost over the continuous current supply at West Hartlepool. The age of an undertaking has a great deal to do with the capital required, as, owing

"RONUK" (SANITARY) POLISH FOR FLOORS.

Polishes, Preserves, and Purifies. *Prevents the Harbouring of Germs.*

Used in the principal Hospitals, also in the National Gallery, Tate Gallery, Hertford House, &c., &c.

Awarded Bronze Medal of the Royal Sanitary Institute.
Only Award ever granted to a Polish.

CONTRACT DEPARTMENT.

"Ronuk," Limited, make a Speciality of Polishing all kinds of Flooring. A Large Staff of Specially Trained Workmen is kept by the Company, and inquiries for Estimates for the first preparation or maintenance of any new or previously unpolished Floors will receive immediate attention.

CAUTION.—Customers should see that every package bears the Registered Trade Mark, as endeavours are made to substitute inferior articles on the ground that they are the same as "RONUK."

A Sample, with Full Particulars and Prices, will be sent Free to any Institution on application.

"RONUK," Ltd., Head Office and Factory, **Portslade, near Brighton.**

LONDON DEPÔT: 86, York Road, Lambeth, S.E. MANCHESTER DEPÔT: 285, Deansgate.

to competition and the larger output of plant, manufacturers are now able to sell at a greatly reduced rate per kilowatt. Coupled with this there is the tendency to instal a smaller number of medium-sized generating sets instead of spending money on many more small units. Some ten or a dozen years ago there was—or it was thought there ought to be—safety in numbers, and stations were equipped with several sets of small size and relatively inefficient, with a view to provide plenty of units of "spare" and introduce interchangeability between them in the event of trouble. This has been found not only unnecessary but objectionable, as there is, other things being equal, a greater risk attendant upon the employment of a small unit compare with a larger one. As West Hartlepool is another of the undertakings which has gained a reputation for its steady advocacy of motor power—and it has reaped its reward by having connected 94 motors, aggregating 556 horse power, to the mains—it offers a good example to those concerns where the rates are maintained at an unduly high rate. The prices charged are 4d. for lighting and 2d. to 1d. for motive power or heating. Excluding maintenance, the receipts from public lighting average 1·25d. per unit, the arc lamps being charged £14 per annum. The plant installed amounts to 650 kilowatts, and the maximum load to 512 kilowatts, equal to a load factor of 14·35 per cent.

Progress at West Hartlepool.

THE progress made in the past four years is shown by the following figures :—

Year, to March	1901.	1902.	1903.	1904.
Units sold—				
Private ...	35,877	217,975	368,897	586,930
Public ...	12,138	50,548	56,730	56,737
Total ...	48,015	268,523	425,627	643,667
Maximum load	186 k.w.	264 k.w.	375 k.w.	512 k.w.
Number of consumers ...	133	233	352	433
No. of lamps...	16,958	23,959	42,548	53,076
No. of motors.	7	29	69	94
Horse-power of motors ...	43	153	409	556
Load factor ...	2·95 p.c.	11·61 p.c.	12·96 p.c.	14·35 p.c.
Nett total cost	5·83d.	2·71d.	2·04d.	1·59d.
Average price received private supply	4·24d.	4·03d.	3·43d.	2·80d.

The receipts were obtained from the following sources :—

	Units.	Yielding.	Per unit.
Private consumers took ...	586,930	£6,846	= 2·799d.
Public lamps consumed ...	56,737	546	= 2·310d.
Interim total	643,667	£7,392	= 2·756d.
Meter rentals...	—	234	= ·087d.
Rents and hire of motors ..	—	259	= ·168d.
Fees, sales, and repairs ...	—	191	
Total revenue	643,667	£8,076	= 3·011d.
Units used on works... ...	20,163		
Total accounted for... ...	663,830		
Utilised on distribution ...	66,160		
Total generated ...	729,990		

The changes per unit are very marked. Expenditure has fallen from 2·179d. to 1·683d., or ·496d. per unit better, and capital charges from 2·210d. to 1·537d., or ·673d. better, making an improvement of 1·169d. From this the reduction of revenue, ·474d., has to be taken, leaving ·695d., by which the previous loss of ·904d. has been reduced to ·209d., showing a rapid approach to surplus-making.

Financial Results.

THE receipts were taken up and allocated thus :—

	Amount.	Per unit.
Works cost	£3,060	= 1·141d.
Rates, taxes, and management	1,205	= ·449d.
Total cost	£4,265	= 1·590d.
Public lamp maintenance...	249	= ·093d.
Gross cost	£4,514	= 1·683d.
Interest charges	1,638	= ·611d.
Sinking fund and repayments	2,484	= ·926d.
		1·537d.
Total actual cost of units sold	£8,636	= 3·220d.
Less deficiency for year ...	560	= ·209d.
Reveuue in all	£8,076	= 3·011d.

The capital invested was covered by the following items :—

Lands	£2,140
Buildings	15,524
Machinery	16,882
Accumulators	851
Mains and services	31,397
Meters	2,587
Electrical instruments	1,830
Arc lamps and posts	844
Various	2,966
Total	£75,021

More About Gas v. Electricity.

IN our last issue we referred to the keen rivalry between electricity and gas, and the vigorous manner in which the gas managers throughout the country were pushing their business along. The electrical fraternity should see that during this year nothing is left undone to make known the advantages of electricity as an agent for lighting and power. Systematic canvassing pays, and if the right man be sent round, his personal and persistent advocacy will do more than is perhaps realised from the immediate return. This should be followed by a dissemination of suitable literature of the up-to-date, catchy kind, crisp and to the point, telling the prospective user exactly what electricity can do for him, and to what cost he will be put if he avails himself of it. To cap these endeavours, an exhibition should be held to demonstrate to all and sundry that the claims are no mere exercises of rhetoric, but solid facts that the appliances are to be had when required at a moderate cost, and that they are reliable when in use. By these means the public will be educated up to the uses of electricity, will become conversant with its details, and will have impressed upon them the source to which to apply when in any difficulty. That such lines are the right ones can be proved—if proof be asked for—by an appeal to the practice of the large power companies, which have devoted as much attention to the "publicity department" of their undertakings as to the technical and issue some of the best of the literature of its kind to be found in any industry.

J.G.WHITE & COMPANY, LIMITED.
ELECTRICAL, MECHANICAL & CIVIL ENGINEERS
GENERAL CONTRACTORS
22A, COLLEGE HILL, CANNON ST LONDON, E.C.
TELEGRAMS "WHITTERICK, LONDON." TELEPHONE 6044 & 6045 BANK

WM. GRIFFITHS & Co., Ltd.,
35 to 39, HAMILTON HOUSE, BISHOPSGATE STREET WITHOUT,
LONDON, E.C.,
CONTRACTORS FOR CONSTRUCTION OF TRAMWAYS
AND MUNICIPAL WORK OF ALL DESCRIPTIONS.
QUARRY OWNERS AND STONE MERCHANTS.
LARGE STOCKS ON HAND OF
PITCHINGS, KERB, MACADAM, YORK STONE, JARRAH TIMBER, &C.
TELEGRAPHIC ADDRESS—"GRIFFITHS, STONE, LONDON." TELEPHONES—Nos. 2868 and 2869, LONDON WALL.

TRAMWAY TOPICS.

The Story of How Ireland Obtained its First Complete Municipal Tramway System. Where Belfast has been Landed through Waiting for the "Approval" of Companies. Cheltenham Council's Attitude to Company's Free Tramway Passes. County Council's Liability for Paving when Light Railways or Tramways are Laid Down.

Bslfast Mnnicipalisation.

BELFAST Street Tramways Compauy's undertaking, including the permanent way, rolling stock, and horses, passed on New Year's Day into the hands of the city Corporation, which will proceed at once to electrify the system at a total cost, including purchase money, of over a million sterling. The transfer of the company's interest in the concern was made on Saturday, in the presence of the Lord Mayor of Belfast and other members of the City Council, by Mr. Barber Glenn, secretary of the company, who drove the first Belfast tramcar 32 years ago, to Sir Samuel Black, town clerk. Three hundred men will be started almost immediately in connection with the electrification process.

New Era in Ireland.

WITH the handing over on Saturday last of this undertaking to the Corporation, the first complete system of Irish municipal tramways came into existence. Let us hope that Ireland is beginning to shake off the hand of the company promoter, as it will one day the hand of the ground landlord. In this fine town is no longer a tramway company, with its headquarters in London and its interests in Belfast only so far as it will yield dividends. The pity of it is that this transference conld not have taken place long ago. The story is interesting.

The Companies "Did Not Approvs."

THE Belfast Tramways Company got its Order in 1871. The Corporation, when the scheme was mooted, referred the matter to a committee for inquiry. A deputation frou this committee visited several large English towns, and soon learned in which direction lay the interests of the ratepayers. It presented a series of conclnsions as to the results of its inquiries, the most important of which were—(1) "That the Corporation should make and maintain the tramways at the expense of the promoters, the estimated cost of constructing the lines to be first lodged in the bank to the credit of the Council, and the cost of repairs to be paid monthly"; and (2) "that the right of purchase after 10 years at cost price, subject to deduction for wear and tear, should be reserved to the Council." Other valuable recommendations as to fares, &c., based on cross-Channel precedent, were also made. The report was adopted by the Corporation, which had a splendid position for practically making its own terms, as there were two rival companies in the field. But this report was afterwards shelved because "neither of the promoting companies approved of it."

Tramways Re-Leassd: Public Protest.

NO stipulation was made for rent, and a lease was granted for 21 years, limiting the Council's powers to the right of purchase at the expiration of that period. In 1893, when the lease of the company expired, the receipts for the year were £94,648, the number of passengers 19,319,323, and a dividend of 7½ per cent. was paid. With a fatuity little short of madness, the Council decided by a majority to intimate to the Tramways Company directors that the Corporation was willing to re-lease the lines for a further period of 14 years at the rate of £4,000 a year for the first seven years, and £5,000 for the second seven. The ratepayers, though not as alert as they might have been, held a public meeting, a strong protest being made against the resolution, and the haste with which the contract had been made. Early in 1903, the growing dissatisfaction with the system induced the Corporation to promote a Bill in Parliament to obtain possession of the undertaking before the expiration of the lease. The Tramways Company prepared to oppose it, and a hard fight was expected, when last March the company unexpectedly made proposals for a settlement, the price of the undertaking to be settled by arbitration. Amongst other stipulations, the Corporation was to take over, and pay off when due, the debentures of the company, which, until they were paid off, would remain a charge upon the undertaking, the amount so payable being deducted from the purchase-money. The company recognised that there was a chauce of the Corporation buying up "the fag end." And it was right. The Corporation offered £90,000 for the undertaking, the lease of which would have fallen through in 30 months, and the company figuratively jumped at it. But all this blundering means that the ratepayer has had to pay, and will continue to pay, a heavy bill. The entire length of the system is 35 miles.

Tramway Passss as "Bribss."

AT the last meeting of the Cheltenham Town Council, one of the members (Mr. Ley Wood), having asked for, and failed to obtain, "a return of the names of all members of the Council and officers of the Council who, during the past year, have held a free pass on the light railway," moved: "That in the opinion of this Council the practice hitherto in vogue of members and officers of the Council accepting free passes on the light railway is a practice which is not condncive to public confidence in its members and officers, and cannot be countenanced." He estimated the value of a free pass on the light railway at €12 per annum, and suggested that no member of the council holding it could be in an independent position when dealing with questions between the company and the Corporation. The strangest circumstance about this strange resolution was that it was carried by twelve to eleven votes.

Nsw Electric Trains.

THE first electric train open to the pnblic on the Metropolitan Railway started from Neasden for Baker Street at eight o'clock on Sunday morning (New Year's morn). Mr. A. E. Ellis, the general manager of the company, was the driver. The service continued up to six o'clock in the evening, 20 electric trains being run to Willesden Green, six to Harrow, and a few to Uxbridge. The public eagerly took advantage of the new order of things, and the officials of the company reported a considerable increase over ordinary Sunday traffic. With the exception of a temporary failure of light in one train, the day's experience was highly satisfactory.

County Councils and Main Roads.

THE Darlington Corporation is claiming from the Durham County Council £14,000, which has been expended on paving certain main roads in the borough where tramways have been laid. The County Council disputes its liability, and contends that macadamising is sufficient for main roads, and that the more costly paving involved by the laying of tramways it is not responsible for. The Corporation has applied to the Local Government Board to adjudicate on the matter, and an inquiry will be held shortly at Darlington to determine the point at issue. The question is one of great interest to all municipalities and local authorities which have tramways or light railways, for this case will form a precedent as to whether county councils are liable for the particular kind of paving which has to be done where light railways or tramways are laid down. Main roads consist of what were formerly regarded as turnpike roads.

Tokyo Contract.

LAST week a special train, consisting of 42 waggons, left Messrs. Dick, Kerr and Co.'s Preston Works, carrying 250 tons of electrical machinery, being shipped in connection with that company's contract for the complete equipment of the Tokyo Denki Tetsudo Kabushiki Company's Tramways. This tramway system, when finished, will cover over 60 miles of line, and operate some 250 cars. The complete installation is being carried out by Messrs. Dick, Kerr and Co., under the supervision of a staff of its engineers, and it is surprising to learn that the only effect the war has had on the progress of the work is in connection with the transportation of the machinery from Yokohama to Tokyo, the railway being congested with war material.

Lancaster and Motors.

THE Electricity Committee of the Lancaster Town Council is considering the advisability of establishing a motor-'bus service.

Manchsstsr to Radcliffe by Car.

THE Radcliffe-to-Whitefield tramway was completed on Saturday morning, and in the afternoon the first car was sent over the lines. The route was opened for traffic this week. The line gives tramway communication between Manchester and Radcliffe.

A Tramway Ssrvice.

ST. Mark's, Kennington, which stands in the centre of the South London tramway system, has become the Mecca of the tram men, and its vicar, the Rev. Dr. Darlington, their prophet. The rev. gentleman has evinced much interest in the aims and aspirations of this extremely civil and useful body of men. A year ago Dr. Darlington organised a special service in their behalf. Enconraged by the success which attended that innovation, the experiment was repeated on New Year's Day. All the men at liberty attended in full uniform, the prayers were read by two of their number in uniform, and the Bishop of Rochester delivered an impressive sermon to the unique congregation, which included a large number of the residents of the district, as well as many attracted from other parts of London by the tram men's parade.

Dsrby Extsnsions.

THE work of extending the electric tramways system at Derby from St. Peter's Street to the Market Place began this week. The contract has been awarded Messrs. White and Company, of London, who completed the electric system now in use.

New Era in London Strsst Transit.

THE action of the London County Council in providing transit conveniences for London is having the welcome effect of stirring competition. The London Road Car Company, which has been experimenting with motor-'buses, has decided to discard its old horse-drawn vehicles, and replace them with roomy and comfortable petrol-propelled conveyances, each capable of carrying 34 passengers. Fifty new motor-'buses are now on order, each costing £600, which is about the price paid for the 16 horses it will replace. These will be on the streets in May, and by the end of the year the company's 460 horsed vehicles will have been superseded by 350 motor-'buses—the reduced number being rendered possible by the increased efficiency of the conveyances. When these are at work the Road Car Company's 5,500 horses will be thrown out of employment, and the departure of these and the unwieldy Juggernauts they draw will materially lessen the congestion of traffic.

Manchester (Official for Ireland.)

MR. A. A. BLACKBURN, A.M.I.E.E., car sheds superintendent of the Manchester Corporation Tramways, has been appointed to the position of car works superintendent to the Belfast Corporation Tramways, at a commencing salary of £300 per annum. Mr. Blackburn has been with the Manchester Corporation Tramways for two and a-half years. He takes up his new duties on February 1st next.

Bournemouth and the B.E.T. Co.

HEARTY congratulations passed at this week's meeting of the Bournemouth Town Council on the fact that the county borough had been freed from the meshes of the Poole and District Electric Traction Company, and that the exorbitant claims put forward by the company (backed by all the resources of the B.E.T. Co.) had been settled by arbitration in a manner entirely satisfactory to the Corporation. On Tuesday the Town Council received the announcement of the settlement with expressions of satisfaction, and passed a resolution of thanks to the town clerk (Mr. George Wm. Bailey), the borough engineer (Mr. F. W. Lacey), and the chairman of the Tramways Committee (Alderman G. J. Lawson) for their services.

Bournemouth Development.

THE Bournemouth Corporation is now going to commence immediately the construction of a tramway to Christchurch by a route which will keep nearly the whole of the line within the county borough. To cross the river into Christchurch, the Corporation has bought the undertaking of the Tuckton Bridge Company. When this extension is complete and the Poole line is in the hands of the Corporation, there will be direct communication by the Corporation cars between Christchurch, Bournemouth, and Poole, the extreme points of the system being about ten miles apart. Regarding the acquirement of the Poole tramway, it is agreed that the Poole and Branksome local authorities will pay to Bournemouth the amount of the arbitration award as regards the lines within their districts and become owners of the lines. the Bournemouth Corporation to take them on lease, work them in conjunction with the municipal system, and pay as rent a sum sufficient to cover interest and instalments of the loan. It is believed the profits from the line will make the undertaking a profitable one for Bournemouth. .

MUNICIPAL ELECTRIC TRAMWAY RETURNS.

Undertaking.	Date of Opening.	Length of Route.	Total Length Track.	Year ends.	Last Weekly Return.		Corresponding Week 1903.		Total Receipts for Year.	
		Miles	Miles		Receipts.	Passengers.	Receipts.	Passengers.	1904.	1903.
Aberdeen	Dec. '99	2·50	5	May 31	1,291	—	1,470	—	44,125	38,618
Ayr	Sept. '01	6	8	—	179	52,353	216	56,595	10,812	10,348
Birkenhead	Feb, '01	13·52	23·53	March 31	991	206,724	955	199,012	41,500	42,135
Blackburn	Mch. '99	13½	13½	March 25	707	133,724	700	128,537	33,416	30,120
Blackpool	Oct. '84	3	6	March 31	337	—	336	—	43,512	37,575
Bolton	Nov. '99	25	35	March 31	1,626	356,568	1,884	405,295	71,599	71,301
Bournemouth	July '02	11·8	18·2	March 31	1,031	186,920	996	171,684	52,445	17,637
Bradford	July '98	53⅜	95½	March 31	3,729	—	3,366	—	169,463	142,382
Brighton	Nov. '01	6·5	11·75	—	904	205 577	729	175,175	—	—
Burnley	Mch. '02	10·60	10·60	March 31	1,089	197.319	857	138,641	—	—
Cardiff	Dec. '01	16	30	March 31	—	—	—	—	—	—
Darwen	Oct. '00	4·5	4·25	Dec. 31	—	—	—	—	—	—
Dover	Sept. '97	3·5	4·5	March 31	214	53,630	179	45,607	9,048	9,177
Dundee	July '00	12·56	23·1	March 31	808	—	763	—	24,512	—
East Ham	June '01	6·6	10·75	March 31	680	255,207	589	225,127	28,292	26.771
Glasgow	Oct. '98; Extens., April '01	72½	143	May 31	14,108	3,728,210	14,965	3,875,240	440,696	420,688
Halifax	—	—			2,498	599,520	2,377	570,480	68,008	61,151
Huddersfield	Feb. '01	—	32	March 31	—	—	—	—	—	—
Hull	July '99	9·5	18·5	March 31	2,302	552,682	2,140	513,786	86,315	75,695
Ilford	Mar., '03	6·5	10·5	—	352	95,414	322	—	17,275	790
Ilkeston	May, '03	3·5	4	—	120	30,728	138	35,589	—	—
Leeds	Aug. '97	37	71	March 25	5,747	—	5,269	—	231,541	218,709
Liverpool	Nov. '98, June '99	66	114	Dec. 31	10,473	2,266,138	10,833	2,315,404	537,171	522,891
L.C.C. *	1897, Jan. '99	—	47¼	March 31	11,645	—	9,655	—	483.717	382,730
Manchester	June '01	72	131·50	March 31	11,972	2,403,705	11,134	2,241,633	479,437	459,820
Nelson	Mch. '02	2·75	3·5	—	117	34,476	91	26,774	4,730	3,429
Newcastle	Dec. '01	17	36	—	3,652	814,974	3,746	812,939	—	—
Oldham	Dec. '00	18	28	—	1,453	278,742	1,025	222,479	49,493	47,260
Portsmouth	Sept. '01	15	28	—	1,437	318,791	1,374	302,843	74,442	68,650
Reading	July '03	7½	13⅜	—	511	119,352	491	113,938	—	—
Rotherham	Jan. '03	7½	—	March 25	386	87,899	391	86,758	17,324	14,777
Salford	Oct. '01	32½	59½	March 31	4,088	758,192	3,934	—	161,274	153,565
Sheffield	Sept. '99	32½	59½	March 25	5,190	1,388,191	4,620	1,230,522	187,626	183,465
Southampton	Sept. '98	9⅝	16⅝	March 31	918	169,843	810	153,309	38,657	40,975
Southend-on-Sea	July '01	6·85	—	March 31	—	—	—	—	—	—
Sunderland	July '00	12·27	23	—	1,116	—	1,072	—	47,804	46,712
Wallasey	Mch. '02	○	10·5	March 31	680	128,263	587	111,735	29,756	27,815
Walsall	Jan. '04	12½	13½	Dec. 31	560	100,314	—	—	25,028	—
West Ham	Feb. '04	9·78	12·98	—	1,260	365,885	—	—	42,039	—
Wolverhampton	April '02	11·258	16·848	March 31	930	192,770	452	90,211	—	—

* Also includes the horse lines.

DICK, KERR & Co., LIMITED,

ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Contractors for Municipal Lighting and Tramway Schemes.

Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

JERRARD'S (PATENT) AUTOMATIC RAIL CLEANERS

Ensure a Clean Rail, both Groove and Head, at All Times and in All Weathers.

NOW IN USE ON OVER 50 OF THE PRINCIPAL SYSTEMS IN UNITED KINGDOM.

RELIABLE. EFFICIENT. DURABLE.

HAVE STOOD ALL TESTS.

For Particulars as to Price, etc., Apply—
JERRARD'S AUTOMATIC TRACK CLEANERS, LTD., 598, Commercial Road East, London, E.
Or to the Sole Agents for United Kingdom—
BRITISH GRIFFIN CHILLED IRON AND STEEL CO., LTD., 139, Cannon Street, E.C.

AN EDUCATIONAL INVENTION.

A NEW SCHOOL STAFF INDICATOR.

COUNCILLOR CULLWICK, of Wolverhampton, and Mr. Jesse Varley, F.S.A., F.G.S., the accountant clerk to the Wolverhampton Education Committee, have placed on the market the "Wickley" staff indicator, a specimen of which is now on view at the education offices, Stafford Street. The staff indicator is a capital example of what might be expected from the joint efforts of a practical business man and one with a taste for tabulated mathematical accuracy.

The staffing of schools is a sore plague to education committees, especially where there is a large number of school departments, as in Wolverhamptan. Set out on printed sheets it is possible to ascertain the state of the staff of individual schools, but to attempt by such means to gauge the comparative state of the whole of the schools is as difficult as a Chinese puzzle.

Messrs. Cullwick and Varley have solved the difficulty in a manner that is remarkably effective, and withal so simple that an office boy can in a few seconds record staff changes as they occur. On a large board is the name of each school under the authority, with spaces representing each class. Within each space are hung two discs, one containing the name and status of the teacher, the other containing the number of scholars in the class. Each class of teacher is represented by a different coloured disc. Where a class is without a teacher an ominous red disc appears. One glance at the apparatus shows even the uninitiated—

(1) The number of classes to be catered for.
(2) Number and status of teachers employed.
(3) Size of the classes, and whether the scholars are too few, or too many, for the qualifications of the teacher.
(4) Teachers required to bring the staffs up to requisite strength.

The present cumbersome methods of keeping records of the school staffs is not only wholly unsatisfactory, but decidedly expensive. It costs at least £30 per annum for printing alone, exclusive of the cost of clerical work. The staff indicator will cost considerably less than one year's printing bill, and afterwards entails little or no expense.

The apparatus is being made and placed upon the market by Messrs. E. J. Arnold and Sons, Limited, school outfitters, Leeds, and there is no doubt it will be welcomed by education committees generally.

FOR THE GOOD OF BLACKBURN.

"PLEASE put the enclosed £10 to the credit of the Blackburn Corporation. This amount to be devoted as the Corporation consider best for the general benefit of the town." These words, written in an apparently youthful hand, were on Wednesday read by the borough treasurer of Blackburn (Mr. J. H. Bailey), on his opening a small parcel, containing ten sovereigns, addressed to him.

MESSRS. MATHER AND CROWTHER.

To the Editor.

SIR,—In view of a rumour which is being circulated to the effect that a certain firm of publishers has a financial interest in this company, will you allow us to state through your columns that all the shares have been and are held exclusively by the directors, and no other person, firm, or company has, or ever had, any interest, financial or otherwise, in this business, or the managument of it.—Yours, &c.,

MATHER AND CROWTHER, LTD.
(A. Burbridge. Secretary.)

10-13, New Bridge Street, London, E.C.

TEMPERANCE PERMANENT
BUILDING SOCIETY,
4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS
For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years.
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager.

BIRKBECK BANK
ESTABLISHED 1851.
2½ per cent. INTEREST
allowed on Deposit Accounts Repayable on Demand.
2 per cent. INTEREST
allowed on Current Accounts on minimum monthly balances when not drawn below £100.
ADVANCES MADE.
STOCKS & SHARES BOUGHT & SOLD.
Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C.

LIGHTNING CONDUCTORS.
J. LEWIS,
5 and 6 Great Winchester Street, London, E.C.
TELEPHONE No. 3053 CENTRAL.

GREAT ECONOMY WITH
GALLOWAY BOILERS AND ENGINES

STEEL BOILERS. ALL SIZES AND PRESSURES. **READY DELIVERY.**
STEAM ENGINES. HIGH-SPEED AND OTHER TYPES **QUICK DELIVERY.**

ENGINE AND BOILER REPAIRS PROMPTLY EXECUTED.

BRANCH OFFICES:

LONDON: 17, Philpot Lane.
GLASGOW: 128, Hope Street.
BIRMINGHAM: Iron Exchange.
NEWCASTLE-ON-TYNE: 13, Mosley Street.

GALLOWAYS LIMITED
MANCHESTER.

Tenders Wanted.

Latest date for sending in tenders in parentheses.

Ambulance. K. Comerford, Clerk to Guardians, Kilkenny, (January 12.)

Bookbinding. Town Clerk, Town Hall, Peckham Road, S.E. (January 16.)

Boilers—Steam, &c. Sir Samuel Black, Town Clerk, Belfast. (January 12.)

Boilers—Lancashire. R. Hilton, Town Clerk, Swindon. (January 24.) See advt. in this issue.

Building Alterations and Additions. T. W. Liddiard, Education Offices, High Street, Walthamstow. (January 9.)

Building Cottage, Sheds, Office, &c. E. J. Gowen, Clerk to District Council, Town Hall, Croydon. (January 18.) See advt. in No. 622.

Building Valve House. F. W. Stevenson, Gas Works, Coventry. (January 16.)

Building Works—Engineers' Cottages. T. Duncombe Mann, Asylums Board Offices, Embankment, London, E.C. (January 11.)

Chimney Shaft. R. M. Prescott, Town Clerk, Town Hall, Fulham. (January 18.) See advt. in No. 621.

Clothing. A. B. Pilling, Metropolitan Water Board, Savoy Court, Strand, W.C. (January 16.) See advt. in this issue.

Contracts—Services and Materials. H. J. Smith, Town Clerk, Town Hall, Kennington Green, S.E. (January 26.) See advt. in this issue.

Conversion of Town Hall into Police Station. H. W. Gibson, Shire Hall, Chelmsford. (January 19.)

Electrical Fire Alarms. T. Duncombe Mann, Asylums Board, Embankment, London, E.C. (January 24.)

Electric Mains. B. Dufton, Town Clerk, Municipal Offices, Pudsey. (January 20.)

Electric Light Installation. Sir Samuel Black, Town Clerk, Belfast. (January 12.)

Electricity Supply (Port Elizabeth, South Africa). Davis and Soper, 54, St. Mary Axe, London, E.C. (January 16.)

Electric Tramways (Shanghai). Messrs. Pook and Co., 63, Leadenhall Street, E.C. (March 31, 1905.)

Electrical Tramway Equipment. C. H. Fry, District Council Office, Erith, Kent. (January 9.)

Fencing, Wrought-Iron. Hatten and Asplin, Council Offices, High Street, Grays. (January 11.)

Fire Hose. Wm. Thacker, Clerk to Guardians, Bancroft Road, Mile End Road, E. (January 12.)

Footbridge. C. W. Tagg, Town Clerk, Town Hall, Camberwell. (January 23.)

Granite. H. A. Winser, Municipal Offices, Kingston-on-Thames. (January 11.)

Granite Setts (City of Capetown). Davis and Soper, 54, St. Mary Axe, London, E.C. See advt. in this issue.

Heating of Pavilions, &c., at Hospital. Sir Samuel Black, Town Clerk, Belfast. (January 12.)

Heating, Ventilating, and Hot Water Plant. R. W. Partridge, Asylum Committee Office, 6, Waterloo Place, S.W. (January 23.)

Iron Pipes. B. F. Meadows, Town Clerk, Town Hall, Hastings. (January 23.)

Jarrah Wood Paving. G. W. Preston, Town Clerk, Town Hall, Rosebery Avenue, E.C. (January 9.) See advt. in No. 622.

Libraries—Competitive Designs invited. Chief Librarian, Public Library, Royal Avenue, Belfast. (January 17.)

Light Railway Construction. W. Knocker, Town Clerk, Castle Hill House, Dover. (January 16.)

Loans of £50 and Upwards. Haswell Brown, Borough Accountant, Town Hall, Sunderland. See advt. in this issue.

Loan—£22,338. W. P. Nicholas, Clerk to District Council, Pentre, Rhondda. (January 17.) See advt. in this issue.

Loan—£1,700. R. T. Griffiths, Clerk to Union, Hay, Hereford. (January 18.)

Municipal Buildings—Designs Invited. H. J. Smith, Town Clerk, Town Hall, Kennington Green, S.E. (January 14.)

Pipes, Road Materials, &c. T. Cann Hughes, Town Clerk, Town Hall, Leicester. (January 10.)

Printing Catalogue. Town Clerk, Town Hall, Barrow-in-Furness. (January 9.)

Printing, Bookbinding, Stationery, &c. C. H. F. Barrett. Town Clerk, Town Hall, Pancras Road, N.W. (February 10.) See advt. in this issue.

Quay Wall. H. S. Dickinson, Clerk to Commissioners, Fish Street, Poole. (January 14.)

Reservoir, &c. F. Horner, Council Office, East Street, Newton Abbott. (January 10.)

Reservoir Construction. Sir Samuel G. Johnson, Town Clerk, Guildhall, Nottingham. (February 13.) See advt. in this issue.

Retubing Condensers. M. Kirkley, Town Clerk, Town Hall, Ripon. (January 18.)

Road Works. T. Duncombe Mann, Asylums Board Offices, Embankment, London, E.C. (January 11.)

Road Works. R. M. Prescott, Town Clerk, Town Hall, Fulham. (January 18.)

School Building. R. H. S. Butterworth, Council Offices, Wimbledon. (January 11.)

School—Competitive Designs Invited. Premiums £50, £30, and £20. Hy. Hamer, Town Clerk, Town Hall, Preston. (February 28.)

Schools—Designs Invited. Premiums £50 and £25. C. G. Watkins, Education Office, Aylesbury. (February 28.)

Sewage Disposal Works. R. W. Evans, Clerk to Sowerby Bridge District Council, Commercial Road Chambers, Halifax. (January 28.)

Sewerage. E. W. Adams, Union Offices, Evesham. (January 14.)

Sewerage Works. P. Cunningham, Clerk to Rathdown District Council, Loughlinstown, Ireland. (January 11.)

Sewage Works. R. W. Evans, Clerk to Urban District Council, Sowerby Bridge. (January 28.)

Sewerage Works. J. E. Rodber, 30, Kingston, Yeovil. (January 21.)

Sewerage Works. J. H. Williams, Town Clerk, Ludlow. (January 21.)

Sewage Disposal Works. A. J. H. Ward, 42, Church Street, Harwich. (January 24.)

Steamers. Two Twin-Screw Saloon. H. W. Cook, Public Offices, Egremont, Cheshire. (January 16.)

Steel Rails. R. Hyde, Town Clerk, Stockport. (January 9.)

Stone—Hartshill. N. H. Dawson, Borough Surveyor, Town Hall, Banbury. (January 14.)

Stores and Materials for Public Works Committee. John Price, City Engineer, Council House, Birmingham. (January 20.) See advt. in this issue.

Street Improvements.—R. Brown, Public Offices, Southall. (January 10.)

Street Works. F. H. Norman, Town Clerk, Municipal Office, Bromley, Kent. (January 10.)

Timber—Tenders for Purchase Invited. G. L. Gomme, Clerk to London County Council, County Hall, Spring Gardens, S.W. (January 13.)

Underground Convenience. H. G. Hills, Town Clerk, Council House, Wandsworth, S.W. (January 9.)

Water Main—Extending, &c. E. Harris, Council Offices, Alexandra Road, Swansea. (January 11.)

Water Storage Tank. W. F. Dewey, Town Clerk, Town Hall, Upper Street, Islington, N. (January 11.)

Water Supply Contract—Engine House, Boiler House, and Chimney Stack. J. Morton, Town Clerk, Town Hall, Kidderminster. (January 20.)

Waterworks Extension. E. R. Owen, Union Office, Llanrwst, N. Wales. (January 12.)

Waterworks Extensions. Town Clerk, Chippenham, Wilts. (January 10.)

Water Van. G. T. Lewis, Town Hall Buildings, Clacton-on-Sea. (January 11.)

Works and Materials. Henry George Hills, Town Clerk, Council House, Wandsworth. (January 9.) See advt. in No. 621.

TO CONTRACTORS.

IT WILL PAY YOU
to Subscribe to

THE MUNICIPAL JOURNAL.

6/6 per year, post free.

Office: 12, SALISBURY SQUARE, LONDON, E.C.

Appointments Vacant.

Latest date for applications in parentheses.

Assistant in Estate Manager's Department. £90. James Tart, Council House, Birmingham. (January 10.)

Caretaker of School. £1 per week. M. L. Dixon, 8, Hythe Street, Dartford. (January 11.)

Clerkships—Fourth Class. Examinations on January 16, 17, and 30th. Applications by 11th and 16th January respectively. Clerk of London County Council, Spring Gardens, S.W. See advt. in No. 619.

Clerk for two months. "Clerk," Town Hall, Cleckheaton. (January 10.) See advt. in No. 622.

Clerk to District Council. A. J. Arthy, Clerk to Urban District Council, Leigh-on-Sea. (January 14.)

Clerk (General). £100. Urban District Council, Box 1334, *Municipal Journal* Office. (January 9.) See advt. in this issue.

Clerk to Guardians and Rural District Council. £180, with additional remuneration for assessment and election work. R. M. Cook, Barham Workhouse, Claydon. (January 13.)

Clerk of Works. George H. Wild, Clerk to Hospital Committee, Hare Hill, Littleborough. (January 14.)

Cook—Male. F. E. Hilleary, Clerk to Guardians, Union Workhouse, Leytonstone. (January 18.)

Electrical Engineer to Corporation. A. Challenor, Town Clerk, Town Hall, Hanley. (January 10.)

Electrical Engineer (Second Assistant). £250. F. Stevens, Town Clerk, Town Hall, Bradford. (January 19.) See advt. in this issue.

Female Inspector of Nuisances. £80. W. F. Payne, Clerk of District Council, Town Hall, Edmonton. (January 9.)

Finance and General Clerk. £100. H. Donaldson, 64, London Road, Grantham. (January 9.)

Headmaster. £500. J. F. Moss, Education Office, Sheffield. (January 18.)

Inspector of Nuisances (Female Assistant). £80. Wm. F. Payne, Clerk of the Council, Town Hall, Edmonton, N. (January 9, 1905.) See advt. in No. 622.

Inspector of Nuisances. £140. E. Waugh, Council Offices, Hayward's Heath. January 12.)

Junior Clerk. £40. Arthur W. J. Russell, Town Clerk, Town Hall, Paddington, W. (January 14.)

Labour Master and Mistress. £50 (joint salary). Mark Sharman, Clerk to Guardians, 1, Harpur Street, Bedford. (January 14.)

Ledger Clerk. £80. J. H. Linfield, Clerk to District Council, Town Hall, Cleckheaton. (January 14.) See advt. in No. 622.

Librarian—Chief. Vivian Orchard, Municipal Offices, 20, Tanners Hill, Deptford. (January 17.) See advt. in No. 622.

Master (£60) and **Matron** (£40). C. E. Speakman, Poor Law Office, Nantwich. (January 7.)

Medical Officer (Assistant). £150. William Thacker, Guardians' Offices, Bancroft Road, Mild End Road, E. (January 12.)

Nurse. £25. J. C. Hayward, Sessions House, Dartford. (January 9.)

Nurses—Children's. £25. F. E. Hilleary, Clerk to Guardians, Union Workhouse, Leytonstone. (January 18.)

Nurse for Isolation Hospital. £1 per week. E. A. Head, Clerk to Godstone District Council, East Grinstead. (January 9.)

Nurse. £30. A. T. Longbotham, Clerk to Guardians, 4, Carlton Street, Halifax. (January 12.)

Nurse-Matron. £50. E. G. Wilson, Clerk to U.D.C., Church Street, Epsom. (January 17.)

Schoolmaster—First Assistant. H. T. Dudman, Guardians' Offices. Northumberland Street, Marylebone Road, W. (January 7.)

Storekeeper. £50. S. Haire, Clerk of District Asylum, Londonderry. (January 20.)

Storekeeper. £30. J. Moulding, Clerk to Guardians, 15, High Park Street, Liverpool. (January 11.)

Sub-Librarian. £100. E. Wright, Town Clerk, Lewisham Town Hall, Catford, S.E. (January 4.) See advt. in No. 620.

Surveyor, &c. £150. D. S. Watson, Clerk to District Council, Burnham, Somerset. (January 14.)

Treasurer—Deputy. £200. T. Hudson, Borough Treasurer, Town Hall, West Bromwich. (January 10.) See advt. in No. 622.

Yardsman. £30. B. Burfield. Parochial Offices, Princes Street, Brighton. (January 11.)

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS.
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

ROAD SCAVENGER.
F. COWLEY, C.E.,
Launceston, Cornwall.

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

*** For conditions of insertion in this column address The Manager,* MUNICIPAL JOURNAL, *12, Salisbury Square.*

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION

IS FAR IN EXCESS

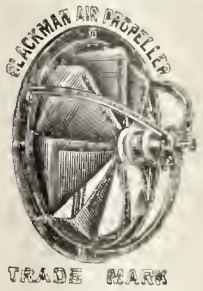
OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL, 12, SALISBURY SQUARE, LONDON.

IRON and WOOD FRAMED BUILDINGS (EVERY DESCRIPTION), **BUNGALOWS, CHURCHES**
AT LOWEST COST.

CHARLES LEATHER & SONS
(ESTABLISHED 1862),
114, MERTON ROAD, and RAILWAY WHARF,
WANDSWORTH, LONDON, S.W.

BLACKMAN



TRADE MARK

ELECTRIC FANS.

GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

WILLIAMSON
ASHTON-UNDER-LYNE,
Telephone 320.

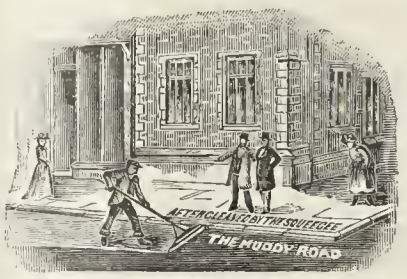
FOR
TICKETS
AND
PUNCHES
FOR
TRAMWAYS, &c.

TICKET NIPPERS.

TICKETS, DATING MACHINES, AND ISSUING CASES
FOR RAILWAYS, BATHS, &C.

SHEATH BROTHERS,
SQUEEGEE MANUFACTURERS,

Borough Councils and Railway Companies.



Borough Councils and Railway Companies.

87, CITY ROAD, LONDON.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment.
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

BONDS are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary SHIRLEY FUSSELL.

GOVERNMENT OFFICIAL PUBLICATIONS.

Messrs. WYMAN & SONS, Ltd., beg to announce that the Stock of Government Official Publications, formerly held by Messrs. EYRE & SPOTTISWOODE, is transferred to them, and in future will be sold by them at FETTER LANE, FLEET STREET, in accordance with their appointment (under direct contract with H.M. Stationery Office) as

Sole Agents for England and Wales.

Acts of Parliament, Parliamentary Papers, Education Department Publications, Reports of Royal Commissions and Committees, Army and Navy Lists, Trade Reports, Minutes of the House of Lords, Votes and Proceedings of the House of Commons, &c.

LICENSING ACT—Rules made by the Secretary of State under Section 6 of the Licensing Act, 3d., post free 3½d.

LICENSING ACT, 1½d., post free 2d.

SHOP HOURS ACT, 1d., post free 1½d.

PREVENTION OF CRUELTY TO CHILDREN ACT, 3d., post free 3½d.

JUDICIAL STATISTICS—Part I. Criminal Statistics, 1s. 8d., post free 2s.

All Orders should be Addressed

WYMAN & SONS, Limited, Fetter Lane, Fleet Street, LONDON.

West End Office: 32, ABINGDON STREET, WESTMINSTER.

EQUIFEX DISINFECTORS

SATURATED STEAM (Patent)

Adopted by the Metropolitan Asylums Board for the Brook Hospital; H.M. War Office for the ROYAL VICTORIA HOSPITAL, NETLEY, and by the Governments of India, Victoria, New South Wales, &c.; and the recent Disinfection Stations of the Boroughs of Lambeth, Fulham, Battersea, Brighton, &c., &c.

Rapidity in Operation. Absolute Immunity from Damage by Scorching. Economy in Fuel. Automatic Control and Record of the Work Done.

The only apparatus complying with the recommendations of the International Sanitary Congress, Buda-Pesth, 1894. Only Medal for Steam Disinfectors, Sanitary Institute Congresse, and highest awards wherever exhibited. Over 1,200 in actual use in all parts of the world.

SPRAY DISINFECTORS, for ROOMS, &c., reduces to a minimum the disturbance of Inmates. Cost a fraction of the time and expense required in use of SO_2, and disinfect with certainty. THOUSANDS IN ACTUAL USE.

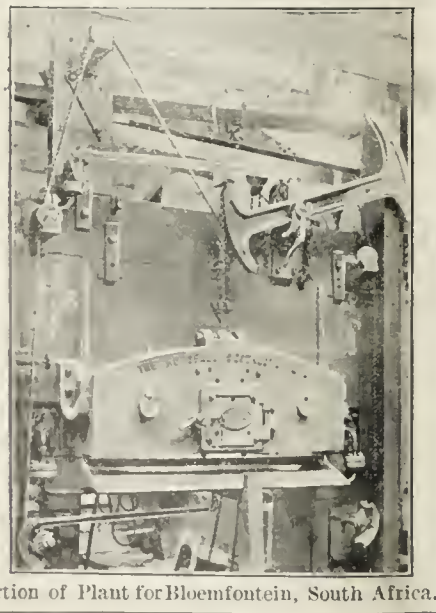
THE PASTEUR FILTER

The only Filter awarded Grand Prix Paris, 1900.

OFFICIAL GOVERNMENT STATEMENT.

"Wherever the Pasteur Filter has been applied Typhoid Fever has disappeared.'

J. DEFRIES & SONS, Ltd., 146 & 147, HOUNDSDITCH, LONDON, E.C.



Portion of Plant for Bloemfontein, South Africa.

Silver Medals Sanitary Institute of Great Britain, 1896, 1902 and 1903.

Gold Medal Brussels Exhibition, 1897.

THE

HORSFALL DESTRUCTOR Co., Ld.

LEEDS,

AND

19, OLD QUEEN STREET, WESTMINSTER, S.W.

Telegrams: {"DESTRUCTOR, LEEDS" / "DESTRUCTOR, LONDON"} A B C and Lieber's Standard Codes used.

Telephone: {LEEDS No. 2006 Central. / LONDON No. 263 Victoria (G.P.O.)}

Printed and Published by EDWARD LLOYD, Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE MUNICIPAL JOURNAL

No. 624.—Vol. XIV. FRIDAY, JAN. 13, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. One Penny.

Official Advertisements.

BOROUGH OF BETHNAL GREEN.

BOROUGH TREASURER'S DEPARTMENT.

APPLICATIONS are invited for the Post of JUNIOR CLERK in the Book-keeping branch of the above Department, at a commencing salary of £60 per annum, rising by conditional annual increments of £7 10s. to a maximum of £90.

Applicants must be between the ages of 19 and 22 years, must have a knowledge of bookkeeping, and be quick and accurate at figures.

The Council may test the qualifications of candidates by examination.

Forms of application (to be returned by January 19th) can be obtained from Mr. W. H. Ashmole, A.S.A.A., Borough Treasurer and Accountant, Town Hall, Bethnal Green, N.E.

ROBERT VOSS,
Town Clerk.

January, 1905.

LONDON AND WESTMINSTER BANK, LIMITED.

NOTICE is Hereby Given, that the ORDINARY HALF-YEARLY GENERAL MEETING of the London and Westminster Bank, Limited, will be held at the Head Office of the Bank, No. 41, Lothbury, in the City of London, on Wednesday, the 25th day of January next, at 1 o'clock precisely, for the following purposes:—

1. To receive the Directors' Report declaring a Dividend, and the Profit and Loss Account and Balance Sheet for the Half-year ending 31st December, 1904, and the Auditors' Report thereon.
2. To elect three Directors. Henry Goschen. Esquire, Sir Alfred Dent, K.C.M.G., and Henry Charles Hambro, Esquire, retire by rotation; but, being eligible, offer themselves for re-election.
3. To elect two Auditors. The present Auditors, Edwin Waterhouse, Esquire (of the firm of Messrs. Price, Waterhouse and Co.), and Alexander Young, Esquire (of the firm of Messrs. Turquand, Youngs and Co.), being eligible, offer themselves for re-election.
4. To transact all such other business as can be transacted at Ordinary General Meetings of the Company.

A. E. MANN,
Secretary.

7th December, 1904.

The Transfer Books of the Company will be Closed to prepare for the Dividend on the 2nd January next, and will be re-opened on the 5th January.

Proprietors registered in the Books of of the Company on the 31st December will be entitled to the Dividend for the current half-year on the number of Shares then standing in their respective names.

Official Advertisements.

URBAN DISTRICT OF FINCHLEY.

ENGINEER'S AND SURVEYOR'S DEPARTMENT. JUNIOR CLERK.

THE Council invite applications for the above appointment, at a salary of £72 10s. per annum.

Candidates must be competent to assist in keeping the books and accounts of the department, and assist generally therein.

Preference will be given to applicants with experience in a municipal engineer's office, and with a knowledge of shorthand and typing.

Applications, endorsed "Junior Clerk," made on forms provided, which may be obtained from the undersigned, and accompanied by copies of not more than three recent testimonials, to reach me by not later than 5 p.m. on the 31st instant.

E. H. LISTER,
Clerk to the Council.

Council Offices, Church End, Finchley.
11th January, 1905.

CITY OF GLASGOW.

TOWN CLERKSHIP.

THE Corporation of Glasgow invite Applications for the office of TOWN CLERK of the City, which is about to become vacant through the resignation of the Subscriber.

The person appointed to the office, in addition to performing all the duties appertaining thereto at common law, under statute, or otherwise, will be required to act as law agent, parliamentary solicitor, clerk and secretary to the Corporation in relation to all the business of its various departments for the time being, including the general department, and the police, tramways, water, gas, electricity, city improvements, parks, markets, and telephone departments, and of all or any trusts, boards, or commissions, now existing, or which may hereafter be created in connection with the Corporation, or in which the Corporation may be interested.

The tenure of the office is now regulated by the provisions contained in Section 17 sub-section (1) of the Glasgow Corporation and Police Act, 1895. The salary (which will not be less than £1,500 per annum) to be paid to the Town Clerk in respect of the whole duties and services to be performed by him as above-mentioned, and the other terms and conditions upon which the office is to be held, will be such as may be mutually arranged and agreed upon between the Coporation and the person receiving the appointment, subject to the provisions of the said Act.

Sealed applications, marked on the outside "Town Clerkship," giving full particulars as to the experience and qualifications of the applicant, to be addressed to, and lodged with, the Subscriber on or before Tuesday, the 31st instant.

JAMES G. MONRO,
City Chambers, Glasgow. Town Clerk.
6th January 1905.

Official Advertisements.

BOROUGH OF CAMBERWELL.

TO ASPHALTE CONTRACTORS.

THE Borough Council, being about to PAVE the roadways of Hollington Street and Sultan Street with MASTIC ASPHALTE, the Works and General Purposes Committee will meet at the Town Hall, Peckham Road, S.E., on Monday, 23rd January, 1905, at 6.30 p.m. precisely, to receive TENDERS for same.

Specifications and forms of tender can be obtained from Mr. W. Oxtoby, Borough Engineer, Town Hall, Camberwell. The Borough Council does not bind itself to accept the lowest or any tender.

Persons tendering must comply with the conditions as regards rates of pay and hours of labour, as contained in the form of contract.

C. WILLIAM TAGG,
Town Clerk.

10th January, 1905.

PARISH OF LAMBETH.

ASSISTANT MASTER.

THE Guardians of the Poor of the Parish of Lambeth hereby invite Applications for the post of ASSISTANT MASTER at their Workhouse, Renfrew Road, Lower Kennington Lane, S.E.

The commencing salary will be £60 per annum, rising by annual increments of £5 to a maximum of £70 per annum, together with board, lodging, and washing.

The appointment will be made subject to the provisions of the Poor Law Officers' Superannuation Act.

Candidates must be single, and thoroughly competent to keep the books and accounts of a large institution.

Printed form of application will be sent on receipt of stamped addressed foolscap envelope.

Application is to be made by means of such form, and in no other manner, and must be sent to me on or before Tuesday, the 24th January, 1905.

Canvassing the Guardians, either directly or indirectly, is strictly forbidden, and will be deemed a disqualification.

By order.
R. GREENWOOD,
Acting Clerk.

Guardians' Board Room and Offices,
Brook Street,
Kennington Road, S.E.,
9th January, 1905.

COUNTY BOROUGH OF SUNDERLAND

THE Corporation are prepared to receive LOANS of £50 and upwards on security of the Rates of the Borough, at six months' notice or for a fixed period.

For further particulars apply to Haswell Brown, Borough Accountant, Town Hall, Sunderland.

13th December, 1904.

WILL JENKINS

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

CRATES MANTELS & KITCHEN RANGES
CASTINGS & CHANDELIERS
BRUSHES PAINTS OILS & VARNISHES
BATHS LAVATORIES & SANITARY ENGINEERS'
WINDOW GLASS LEADED LIGHTS & CASEMENTS
BUILDERS' IRONMONGERY
BUILDERS' CASTINGS HEATING APPARATUS AND STABLE FITTINGS
TIMBER JOINERY WOOD & WHARF GOODS

All these Books are Bound (Cloth Boards) in

Two Volumes,

Containing 880 Pages 12" by 10" (54 in Lithography), and with our No. 27 Tariff.

Form one of the most Practical Up-to-date Guides to Purchasers of all kinds of Builders' and Sanitary Engineers' Goods yet issued.

We will send them **Carriage Paid,** to ARCHITECTS, ENGINEERS, and SURVEYORS upon receipt of bona-fide applications.
Please mention this Journal when applying.

YOUNG & MARTEN, LTD.

CALEDONIAN WORKS. STRATFORD, LONDON, ENGLAND.

IDRIS ROYAL MINERAL WATERS

The Purest and Best.

IDRIS & CO., Ltd., Camden Town, LONDON, N.W.; And at LIVERPOOL, SOUTHAMPTON, and CANTERBURY.

SUBSCRIPTION FORM FOR THE "MUNICIPAL JOURNAL."

Please send me weekly for_____ months the MUNICIPAL JOURNAL, *for which I enclose*_____

*Name*_____

*Address*_____

Cheques and Postal Orders to be made payable to Edward Lloyd, Limited, 12, Salisbury Square, London, E.C.

TERMS POST FREE FOR THE UNITED KINGDOM.
Three Months . . 1s. 8d. | Six Months . . 3s. 3d. | Twelve Months . . 6s. 6d.
ABROAD.
Six Months . . . . . 4s. 4d. | Twelve Months . . . . . 8s. 8d.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

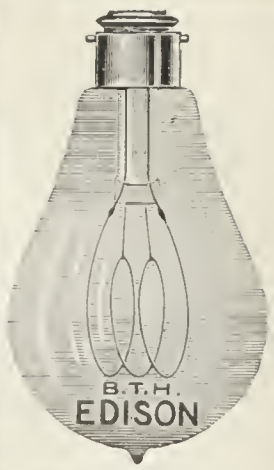
GREAT TURNSTILE, HOLBORN, LONDON, W.C.

THE BEST JUDGES OF CIGARS

Now obtain their supplies at

BENSON'S, 61, St. Paul's Churchyard, London.

Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.



MADE IN RUGBY.

TRUISM No. 3.

"Verbum sat Sapienti."
i.e. A word is enough to a wise man.

Do not use Electric Lamps like oil chimneys—until they break. The longer Electric Lamps are burned after, say 700 hours, the more they cost for current per candle-power hour. Remember that the

B.T.H. EDISON
ELECTRIC LAMP

is the most economical in current consumption, and that it has a better maintenance of candle power than any other lamp.

Obtainable from all principal Electricians, Ironmongers, Stores, &c.

Manufactured by the B.T.H. CO., Ltd., RUGBY.

THE MUNICIPAL JOURNAL
ESTABLISHED AS "LONDON" THIRTEENTH YEAR OF ISSUE.

No. 624.—Vol. XIV. JANUARY 13, 1905.

THREE LONDON NEEDS.

A Notable Scheme is Put Forward by the Well-known Electrician, Mr. A. R. Bennett, M.I.E.E., to Link the Northern Tramways with the Southern; to Construct a New Thames Bridge for Foot and Vehicular Traffic; and to Build a Magnificent County Hall Over the River. How the Three Proposals could be Carried Out as One Improvement.

LONDON at the present time has three great needs. One is the linking of the tramway systems north and south of the Thames; another, increased bridge accommodation across the river; and a third, the provision of a new county hall.

There is a tide in the affairs of cities as well as of men, and the present moment has been seized for putting forth a remarkable suggestion by which these three needed reforms can be carried out at one stroke. Mr. Alfred R. Bennett, M.I.E.E., the well-known electrician and telephone expert, proposes to build a new bridge, on which a handsome hall worthy of London would be erected, with the basements so constructed that tramways could be taken through them.

Our illustrations show at a glance the nature and magnitude of the scheme. The respective levels of the river and the Strand at the head of Arundel Street render it possible to construct a bridge across the Thames from the foot of Arundel Street, which, while being practically level, like Waterloo Bridge, would give more than the headway necessary for the river traffic, and meet all the other requirements of the Thames Conservancy. Such a bridge could be connected with the new County Council tramway tunnel, already existing, by a falling gradient, ending at the southern side of the Strand. A short subway under the Strand would connect with the tunnel at Aldwych. The northern tramways could thus be continued to the Surrey side of the Thames, and if a new thoroughfare were made through the poor property which intervenes between the southern end of such a bridge and the Waterloo Road, or, preferably, continued straight to St. George's Circus, a perfect junction for the tramway systems would result. The erection of such a bridge would also solve the foot passenger and vehicular problem.

PROPOSED COUNTY HALL FOR LONDON (FROM THE RIVER).

The amount of property that would have to be acquired on the northern side of the Thames, as on the southern, would be comparatively small; consisting of a portion of the block between the east side of Arundel Street and Milford Lane, the cost of acquiring which, it is calculated, would be at least partly compensated for by the increased value of the sites in Aldwych and King's Way, owing to the connection of those thoroughfares with the new through route to the Surrey side. The viaduct between the Strand and Victoria Embankment would contain many spacious arches, the letting of which would bring in a recurring yearly income.

So far, the scheme is a self-contained one, and provides for the two first-mentioned wants—tramway linking and bridge accommodation. It *may* stop there, but by departing somewhat from the commonplace, it may be made to include the third improvement.

The search for a central site large enough for a building on a scale commensurate with the London County Council's requirements has recently been described as hopeless. Thus the way to a county hall worthy of the Metropolis appears permanently barred, while to erect one that is too small for its purposes, or otherwise unworthy, would be lamentable.

This suggestion to create a site out of the Thames by building the new bridge of sufficient size and strength to support a County Hall is a bold and taking one. But a bridge-supported building is by no means without precedent. Old London Bridge was for centuries so covered with houses as to form an almost complete street, and the Ponte Vecchio at Florence, and the Château de Chenonceau in France, are other examples.

The bridge would be surmounted in the first place by lofty vaulting with open sides, so that light and air would have free access, and under this vaulting, which would completely cover he roadways and footpaths, the traffic would be conducted. On the vaulting the main building would be erected. As the available space would permit of a building nearly 1,100ft. long, and of a width of from 70ft. to 100ft., it will be seen that a large amount of accommodation would be obtainable. It has recently been stated that five acres would not be too much as a site for the county hall. This area, in the mind of the speaker, no doubt included an inner quadrangular court, indispensable for light and air purposes in a building of ordinary plan. A three-storey building erected on the bridge would yield a floor space of about four and a half acres, all available for working purposes, since the building would require no interior source of light or air, for it would, from its position and construction, undoubtedly be the best-lighted building in London. In an ordinary square building covering a large site an inner court or well is indispensable, yet such a building must necessarily contain many ill-lit rooms into which the sun probably never shines, a condition of things which constitutes a perpetual hindrance to work, renders costly artificial illumination unavoidable, and is decidedly inimical to the health of the employees. The proposed Bridge Hall would be entirely free from these defects. Its direction north and south would secure for it the maximum amount of sunshine both morning and afternoon. Should, contrary to expectation, the actual bridge space not prove sufficient for a long time to come, there would exist means of easy extension, for the Hall could be prolonged over, and by the side of, the approaches on the Surrey side; or a separate building could be erected there later on.

THE VIEW FROM THE STRAND.

The second and third storeys of such a building could be devoted to the departmental offices, while the first, or main, storey, immediately over the vaulting, could contain a Council Chamber of magnificent proportions, committee rooms, a ball room, dining-room, a concert hall, which could also be used for public meetings and as a picture gallery, a library and reading-room, and museum.

The style suggested is the Perpendicular English Gothic, both for the building and for the bridge. The vaulting over the roadway would represent the ground floor of the Hall, and as we have already partially explained, under the vaulting would run two footpaths, each 14ft. wide; two carriage-ways, each 20ft. wide; while 20ft. would remain in the middle to accommodate a double-track tramway.

It is centuries since any municipal building worthy of note has been erected in London. Manchester, Glasgow, Leeds, and many other provincial towns have provided themselves with worthy temples of civic life. Abroad, in Germany and elsewhere, monumental town halls have arisen in recent years. The first City of the World alone appears too poor to provide itself with a worthy local habitation. London has been too much divided against herself, and a central home of commanding character and interest would help the change that is taking place towards a more unified London.

These are some of the reflections that have led Mr. Bennett to suggest a building entirely out of the common. The hall would be a worthy landmark.

A commanding feature would be the central tower and spire, reaching to 445ft. above the roadway, and 487ft. above high-water mark. This would be the tallest spire in the United Kingdom, and the second highest in the world. At 349ft. above high-water mark would be situated an observation platform, rendered easy of access by an electric lift. From it would be obtainable views of London and the surrounding country not to be paralleled elsewhere. The pier supporting the central tower would be of much larger dimensions than the others, following the example of Old London Bridge, which was distinguished by its massive central pier. In the pier would be located the apparatus for heating the building and other machinery. Under the tower, on the first floor, would be situated the Council Chamber. The second, third, and fourth storeys of the tower would be divided into offices, and plenty of floor space would be available on the still higher floors for stores and record rooms. The Hall would also have four corner towers, two at each end, of noble proportions, which would provide much additional floor space on their various storeys.

The question of cost is extremely important. Mr. Bennett estimates that it need not be excessive, for it is now possible to mould where it was in the past necessary to carve ornamentation, &c. It is suggested that the hall should be faced with Carrara ware, as used in the new Savoy Hotel buildings. This would give a light and fairy-like appearance, and yield very beautiful results in favourable lights. The cost would, of course, depend upon the method of construction. In the Gothic style, as described, with a liberal margin for adequate internal decorations, it would cost £2,250,000, and the cost of the bridge, with the approaches, tramway connections, together with the acquisition of the necessary property on both sides of the river would be a further sum of £2,500,000, or a total of £4,750,000. As a set-off to this, it is calculated that the County Council would save the following expenses:—

Widening of Waterloo Bridge no longer necessary ...	£500,000
Saving on the purchase of sites	1,000,000
Capitalisation at 5 per cent. of the annual rents now paid for office accommodation	700,000
Betterment of existing sites owned by the County Council	30,000
Saving of expenditure on some other method of linking the tramways now rendered unnecessary	60,000
	£2,290.000

Other economies and additional sources of revenue are expected to bring the total sum saved to £2,590,000, which would leave the nett cost of the new bridge and County Hall at £2,160,000.

UNDER the new forms for use in proceedings under the Housing of the Working Classes Acts, 1890 to 1903, issued this week by the Local Government Board, a "closing order" may be made where, in the opinion of the local authority (a), any dwelling-house is not reasonably capable of being made fit for habitation, or (b) is in such a state that the occupation thereof should be immediately discontinued.

MUNICIPAL SAVINGS BANKS.

A Strong Opinion Against Them from the Borough Treasurer of Bury. Proposal that Savings Banks shall Invest with Corporations. Small Loans Undesirable on Account of Expense, Extra Staff, and "Risk of Misappropriation." Joint Stock Banks and Small Deposits.

(By R. W. BUXTON, the Borough Treasurer of Bury.)

[In view of the widespread interest that has been created by the publication of a summary of Mr. Buxton's report on Small Loans, we reproduce the document in full this week. We do not, however, agree with its conclusions. See "Notes and Comments."—ED. M.J.]

I HAVE made an exhaustive examination into the question of accepting small loans of £10 and multiples of £10, either on deposit or on mortgage, and beg to make the following report as the result of my inquiries.

In the first place it was advisable to obtain the experience of other Corporations in this matter, and with that object in view a series of questions were framed and issued to about 100 boroughs. Nineteen boroughs have carried out the arrangement of accepting loans from £10 to £90, and (with the exception of one or two instances which will be dealt with later in this report) they have met with a very poor response, and in some cases absolute failure. Eight of the boroughs have still the subject under consideration, and 62 have not entertained the question, several stating they consider the small loan system is not a suitable one for Corporations.

The Case of Bootle.

Of the boroughs which have succeeded in raising a considerable amount in this way, the most notable is the neighbouring Borough of Bolton, the treasurer stating that they have raised about £50,000 in small loans of not less than £20 on deposit. The interest on these loans, varying from 3 to 3¼ per cent., is paid by cheque each half-year and ledger accounts kept of each of these items, and the whole of the work, it is said, is done without additional staff or cost. The plan adopted is as follows:—The depositor calls on the borough treasurer, who furnishes him with a banker's ticket, which authorises the bank to accept the money he desires to lend. The banker gives the depositor a receipt, which is taken back to the town hall, and handed to the town clerk, who thereupon at once issues a deposit note under a sixpenny stamp. This method, though somewhat clumsy, is carried out with the object of protecting the Corporation, the bank alone handling the money, the treasurer giving the authority to receive it, and the town clerk issuing the security. The Inland Revenue authorities are claiming that a further stamp duty of 2s. 6d. per cent. is due to the Government on this issue, and although the Corporation of Bolton is resisting this claim, there is every probability that the Inland Revenue will succeed in its claim.

Stoke and Others.

The Corporation of Stoke made a very strong attempt to raise money in this way, with the object of raising £30,000, and pressed the same before the public notice by the issue of pamphlets and by a long article in the local paper. The Corporation was prepared to accept sums of £10 and multiples of £10 on deposit, repayable at three months' notice, and bearing interest after the rate of 3 per cent. Deposits were to be made at the borough treasurer's office during office hours. No form of application was needed, and investors could send crossed cheques for these small amounts through the post, and thus every facility was given to make the investment easy, and yet the effort has been quite a failure, as only some £1,100 has been received.

The Corporation of Birmingham raised, a few years ago, a sum of £159,190, but this was not made up of sums of £20, but items as low as £20 were received; but the treasurer states that the scheme entailed a great deal of extra labour, and the Corporation has abandoned the scheme, and has already reduced the amount by the repayment of over £100,000.

It may also be pointed out that the Bury Corporation (acting then as Commissioners) some 30 years ago adopted the plan of accepting loans of £20 or more, at 4 per cent., and 4¼ per cent., and by this means raised a sum of £10,814 in the course of three years; but the Commissioners at that time were not satisfied with the result, and instructions were given shortly afterwards not to accept sums of less than £100.

Banks on the Question.

With regard to the question of the establishment of a municipal savings bank, it would first of all be necessary to obtain statutory powers to borrow by this means, and which can only be done by Act of Parliament. The raising of money by this method would, of course, require an entirely separate department, with additional staff to carry out the work efficiently, and with sufficient check to prevent the misappropriation of money received, and in view of the facilities already offered for the saving of small sums, it is extremely doubtful whether such a system could be worked to advantage to a corporation from information gathered from existing savings banks. It seems to me the solution lies in the hands of the present Government Savings Banks. By the Savings Bank Act, 1904, the trustees of the banks are empowered to make special investments. The clause runs thus:—

> Money received for special investments may, notwithstanding anything in Sec. 10 of the Savings Bank Act, 1891, be invested in any securities under the Loans Act, 1875, and in loans secured on the security of any local rate levied under the authority of any Act of Parliament by any local authority authorised to borrow money on that security.

By this means savings banks can invest with corporations large sums of accumulated funds at a small rate of interest above the amount paid to the depositors, and thus secure for the corporations loans at a much less rate than they are at present giving, and at a considerable less cost than the expense of running a municipal savings bank. This has been the case in Manchester, Preston, Leeds, and other large towns. The Bury Savings Bank proposes to adopt the Act, and it may be safely anticipated that the Bury Corporation will have the first refusal of the bank's investments. We should thus be saved the labour, expense, and risk incurred by the opening up of a channel for small investments either by means of small loans or the institution of a municipal savings bank.

It must also be pointed out that receiving small deposits also entails the repayment by small amounts, which would have the effect of doubling the additional labour consequent upon receiving small sums, and the result of my inquiries is that in order to raise a clear sum of £10,000 we should have to turn over at least £30,000, and stamp duty would be necessary on the larger sum.

It will probably be argued that the expense will be very small and the labour not worth consideration, but where the staff is already worked to its full capacity the engagement of additional clerks would be absolutely necessary, and the expense, as well as the labour, would be of no small dimensions if an amount worthy the effort is to be received, retained, and dealt with.

Risks.

The risk of misappropriation is by no means inconsiderable, unless a staff of efficient auditors is continually on the premises. Savings banks are constantly under Government official control and inspection, and a voluminous system of checks is in practice, involving a large number of books, and weekly as well as annual returns to Government. There were in the Bury Savings Bank about 17,000 transactions during last year, and each transaction requires at least six different book entries. Another advantage to the savings bank investors is their freedom from income tax, as well as the stamp duty, and in these two items alone a considerable saving is effected.

Since writing the above, some joint stock banks have entered upon an experiment of receiving across their counters items as small as one shilling, offering the ordinary bank rate on these deposits, with a view, no doubt, of capturing some portion of the deposits which now go to swell the Government Savings Banks; but it can scarcely be conceived that investors are prepared to sacrifice probably from 1 per cent. to 1½ per cent. interest for the privilege of an easy access to their money. This venture would further tend to decrease the chances of success of your Corporation establishing a small loan account.

Weighing the whole evidence up for and against the experiment, my conclusions are against the scheme. If I could bring myself to believe that a large sum could be realised by this means at a small cost, there would be no hesitation on my part to recommend the Bury Corporation to adopt the system, but after giving the matter most careful consideration, and after consultation with others, both in the financial and municipal world, my opinion is that the methods of raising money in this way is unsuitable to a Corporation.

WHITBY BILL.

DRASTIC MUNICIPALISATION PROPOSALS MODIFIED.

IN a modified form the Whitby Parliamentary Bill was approved by the local ratepayers on Monday. Our readers are aware that the original proposals were very extensive. The promoters have now dropped the clauses relating to the acquisition of the waterworks and the West Cliff, a piece of land nine acres in extent, which on a small scale is to Whitby what the Spa is to Scarborough.

Several important provisions, however, remain in the Bill. First and foremost there is the proposal to purchase the undertaking of the harbour trustees, a body constituted by Act of Parliament, and whose main, if not only, source of revenue consists of dues, which represent a diminishing income.

Next in importance come the clauses to acquire the market and fair rights within the district, and the right to close slaughterhouses on the provision of a public abattoir, and to acquire the foreshore and other lands, including the bed of the harbour, the Abbey Plain, and the soil of the ancient streets, and the disposal of sands.

Powers are also sought in regard to the provision of music in the pleasure grounds and pavilion, and the regulation of the seashore, and to make police provisions as to the cleanliness of the streets, the leading and driving of cattle, the crying of newspapers on Sunday, and the control of itinerant musicians.

Another object aimed at is the power to spend money in advertising the attractions of Whitby.

RATEPAYERS AND MUNICIPAL ADVERTISING.

THE Aberystwith Ratepayers' Association, realising the undoubted advantages of municipal advertising, has decided to wake up its Town Council on the matter. At the annual meeting of the Association this week complaints were made as to slackness in winter advertising, and it was agreed that a special meeting of the executive be called to draw up a letter to be sent to the Council.

CHILDREN AND THE UNEMPLOYED.

WITH the object of helping the unemployed, the teachers and the scholars in the Holbeach Road Council Schools, Lewisham, have been long preparing for an entertainment which is to be given to-night (Friday) in the Parish Hall, Ladywell Road. An excellent programme has been arranged.

EDUCATIONAL NOTES.

The Appeal to Cæsar! and the Result. School Hours at Bolton and Twickenham. Burnley's New Technical School. Scholars Employed as "Beaters." Hebrew Children at Hull. The Right of Entry to Voluntary Schools. Should Teachers Work when their Schools are Closed. Whitehall and Secondary School Fees at Worcester.

Association of Education Committees.—The interview which the executive committee of the association had with Sir William Anson upon the important educational questions of increased grants for elementary and secondary schools for training of pupil teachers, and the reintroduction of the epidemic grant, has been unsuccessful in its results. The Permanent Secretary, after a lengthy reply, held out no hopes in the direction of increasing the imperial grants.

Bedfordshire.—The Education Committee has decided that the director of education be authorised to obtain the necessary tools required for school gardens, at a cost not to exceed £6 for each school.

Birmingham.—The Board of Education has condemned the St. Mary's Infant School in Handsworth, the handsome suburb of Birmingham. The school was built in 1872, and adjoins the parish church.

Bolton.—The Education Committee has passed the following resolution:—"That the committee do approve any school time-table in which managers have made provision for opening school at 9.45 on not more than one morning per week; and that managers who desire to take advantage of this provision must submit a new time-table and have the same approved before any action is taken upon it."

Bournemouth.—The Education Committee has decided that managers of Voluntary schools are to pay for the lamp shades and chimneys required in the Voluntary schools.

Brighton.—The Education Committee has decided that managers of Council and Voluntary schools be permitted to give holidays in the schools under their control on not more than six days, or twelve half-days in each year, beyond the general holidays, subject to the minimum number (400) of school meetings required by the Code.

Burnley.—The Corporation has purchased a site in the Ormerod Road for the erection of a new technical school. The site comprises 10,000 square yards, and cost £5,000. It is proposed to expend £60,000 upon the building and its equipment. The existing technical school accommodation has been condemned by the authorities at Whitehall.

Durham.—The City Council has given powers to its Education Committee as follows:—(1) Subject to the levying of a rate and borrowing money, all the executive power of the Council be delegated to the Education Committee, except the appointment of officials or teachers with salaries of £120 a year or upwards; (2) that there shall be reserved for the Council's final sanction (a) any general scheme of policy, (b) any variations from decisions already arrived at by the Council, (c) any proposal involving capital expenditure or a general permanent increase, (d) any county time-table or curriculum; (3) that the committee, on all matters of increased expenditure on its financial proposals, shall consult with the Finance Committee of the Council; (4) that the committee shall make a full detailed report of its proceedings once a quarter to the Council, in addition to an annual report.

East Suffolk.—The attention of the Education Committee was called to the fact that the school at Tattingstone was recently closed, so as to enable the boys to be employed as "beaters" for a shooting party. Instructions were given for a letter to be sent to the employer deprecating such a course, and to the managers, intimating that the committee hoped that no future closure would take place for this object.

Hertfordshire.—The Education Committee has approved the form of bye-laws for school attendance, included in which is the new model clause as drafted by the authorities at Whitehall. With regard to the payment to be made by managers for the use of a classroom, the Committee has decided that for the use of fuel and light and cleaning, the charge shall be 5s. per meeting for single occasions, and 3s. for a series.

Hull.—The Education Committee has agreed to allow the Hebrew children in its schools to leave school at 3.30 during the winter months to attend worship.

Isle of Ely.—The Education Committee agreed that the charge to managers of Sunday schools for the use of the committee's schools be at the rate of 5s. per fire per annum, to be retrospective as from the "appointed day."

Leicester.—At the Education Committee it was agreed to communicate with the authorities of the voluntary schools, with a view to securing for members of the Education Committee and the town council admission to the schools in the same way as in the council schools.

Manchester.—The Education Committee has secured Swinton House, Swinton Park, as a residential school for the training of crippled scholars. In addition, a fourth school for the training of the feeble-minded is being established, and arrangements are proposed for the provision of a home for epileptics outside the city.

Middlesex.—The Education Committee has notified the Twickenham Council that it is prepared to defray the cost of instruction of pupil teachers, but not their travelling expenses. Any additional expenditure is to be borne by the local committee.

Richmond (Surrey).—The Education Committee has agreed to print an educational handbook for the new year for the use of the committee and the managers.

Twickenham.—The Education Committee has decided to recommend the Council to assent to the principle that where the parent has notified to the managers in writing his intention to withdraw a child from religious instruction, such child shall be deemed to have made an early attendance if present at 9.45 a.m.

West Suffolk.—It was reported to the Education Committee that the sub-committee on Teaching Staff was of opinion that when a school was closed for a greater part of three months, the teachers should be employed at other schools where their services could be utilised. The secretary stated that the National Union of Teachers was about to test the question, and that the matter could therefore wait.

Worcester.—The Board of Education has intimated that it is of opinion that the proposed fee of 13s. 6d. per term at the Victoria Institute Secondary School was open to serious objection on general educational grounds, and further that, except in very special circumstances, a tuition fee of not less than £3 per annum should be imposed. The Board added that in the case of poverty, it would not object to exemption from fees, such only to be granted on the result of examination or other suitable test, and the number to be limited to 25 per cent. of the total number in the school.

Moral Instruction.—The Moral Instruction League has for its objects the introduction into schools of systematised non-theological moral instruction, and the formation of character of the scholars. The following education authorities have made provision in their schools for moral lessons in addition to the Scripture lessons—Durham, Monmouth, Nottinghamshire, Birmingham, Bradford, Leicester, Burton-on-Trent, Shipley, Barry, and Bexhill.

MUNICIPAL TELEPHONES.

PROGRESS IN 1904.

THE following table shows concisely the progress made by the various municipal telephone enterprises during the past year:—

Place.	Number of instruments working at December 31, 1903.	Added during 1904.	Total at December 31, 1904.	Junction lines working at December 31, 1904.	Grand total of instruments and junction lines working at December 31, 1904.
Guernsey ...	1,215	158	1,373	32	1,405
Glasgow ...	10,632	1,504	12,136	834	12,970
Portsmouth...	1,486	553	2,039	20	2,059
Swansea ...	579	488	1,067	11	1,078
Brighton ..	431	1,199	1,630	22	1,652
Hull	—	943	943	59	1,002
		4,845	19,188	978	20,166

The total number of switch-rooms in operation was 50. The best telephoned area in the United Kingdom is still Guernsey, which has now one telephone to every 29 persons. In each place there is a considerable number of orders still to execute, amounting to 1,000 in the case of Hull.

A GIFT TO MANCHESTER.

THE Royal Botanical Gardens at Manchester have been offered to the Corporation for the benefit of the public. The gardens, which are situated at Old Trafford, were opened in 1831. They are 16 acres in extent.

The ornamental grounds have been carefully and tastefully laid out, and contain a fine collection of shrubs and trees, flowers and ferns. It is an open secret that financially the gardens have been in a bad way for some years past, owing to changes in the neighbourhood.

About a year ago it was proposed that the Stretford Council should purchase the estate for £20,000, and this was agreed to by the society, but subsequently the scheme was defeated on a poll of the ratepayers of the district. This amount does not in any way represent the value of the property, which, it has been estimated, would realise at least £50,000 if put on the open market.

ACRES FOR STOCKPORT.

LADY DUNDONALD has presented to Stockport three acres of land for the purpose of a recreation-ground. The land is situated in the Ashwood district, where a large number of houses have recently been built, and the gift is free of restrictions. The value of the land is about £3,000.

Lady Dundonald, who is the wife of Lord Dundonald, the brilliant cavalry leader, owns a large amount of property in Stockport and district. Stockport is now well supplied with parks and recreation-grounds, the majority of which have been presented by the town's benefactors.

SUNDERLAND LIBRARIES.

BOOKS BY TELEPHONE AND TRAMWAY.

MR. CARNEGIE recently made an offer to Sunderland of £10,000 for the building of two branch libraries; but the Sunderland public librarian (Mr. J. A. Charlton Deas), in a report to the Town Council just issued, suggests that there should be three instead of two, and he makes a further very interesting proposal.

In order to put the stock of books at all the libraries at the equal disposal of all the ratepayers, he suggests that telephones should be installed in the branch libraries to give readers the opportunity of easily ascertaining whether a desired volume, not at the nearest branch, happens to be in the others, and if found to be available he would, he says, send the book by tramway to the branch nearest the borrower's residence.

THE BATHS OF BUXTON.

As from the Beginning of the Year the Famous Baths at Buxton Passed from the Ownership of the Duke of Devonshire to that of the District Council. The Terms of Transfer—a "Perpetual Chief Rent" Frustrated. The Baths Described. A Royal Visit Last Week.

WITH the opening of 1905, the far-famed mineral waters of Buxton passed from private ownership into the hands of the town. Buxton is not a town of mushroom growth, but possesses a reputation which has come down unimpaired through the centuries. It is one of the most ancient watering-places in the kingdom, and the many remains of Roman roads, baths, and villas indicate that the invaders indulged their love of bathing in the health-giving waters.

THE THERMAL BATHS.

Up to the present time the springs have been the property of the Duke of Devonshire, but last year his Grace's agent intimated to the Council that the Waters and Baths were for disposal, and the town would be given the first opportunity of acquiring them. It was felt that the vital prosperity of Buxton depended so largely on its waters that to allow the opportunity for municipal control to pass would be disastrous.

The purchase price was fixed at £25,000, with a perpetual chief rent of £1,000 per annum. When the Bill came before the Committee of the House of Lords, the Lords Chairman and also the Local Government Board objected to a perpetual chief rent. Further negotiations took place, and it was agreed that the Council should pay an annual sum of £2,431, terminable in sixty years, and to include principal and interest, the actual purchase price being £55,000. At the termination of this period the baths will be the absolute property of the Council without the incubus of a heavy chief rent. The seal of the Council was formally affixed to the agreement on the 24th June, 1904.

There has been a steady improvement from the earliest bath of which we have any reliable record—the remains of which Dr. Leigh described in the 17th century as being "cemented with plaster, red and hard as brick, and resembling some kind of tile, and probably of Roman erection"—to the handsome building and elaborate fittings of the present day.

The bathing establishment is divided into the Natural Baths, where the water is used at its natural temperature of 82 degrees Fahr., and the Thermal Baths, where water of any desired temperature can be applied. The natural baths are paved with slabs of perforated marble, through which a stream of fresh mineral water is constantly flowing. There are two swimming and six private baths for gentlemen, and one swimming and five private baths for ladies. The thermal baths are situated on the opposite side of The Crescent. The mineral water is collected in larger tanks, and heated to the desired temperature by means of steam coils. There are 14 private baths for ladies and 10 for gentlemen. The baths are fitted with douches of all forms—wave, spray, ascending and descending; and attached to the thermal baths are the needle, Russian vapour, and massage baths.

The mineral waters flow from several fissures in the limestone at the edge of this formation at an elevation of 1,000ft. above sea level. The water is clear, tasteless, and odourless, and when seen in bulk of a faint blue colour. A detailed analysis of the waters was made some few years ago by Dr. John C. Thresh, the eminent authority on water. The distinctive feature of the Buxton water is the large quantity of nitrogen with which it is charged, the proportion contained being larger than that in any other known medicinal spring. Dr. Thresh determined the amount as follows:—

	Cubic inches per gallon of water.
Nitrogen	6·1
Carbon dioxide	4·1
	—10·2

The waters are usually classed with those of Gastein and Wildbad, but the foreign spas are greatly inferior to Buxton in the amount of free nitrogen which their waters contain. The water at Gastein, in Austria, contains four cubic inches of nitrogen per gallon, and that of Wildbad, in Würtemburg, 4·7 cubic inches per gallon, so that the free nitrogen in the Buxton water exceeds that of the continental spas by one-third.

Sir Dyer Duckworth, M.D., in his standard book on gout, discusses the many health resorts available for the sufferer, and places the thermal springs of Buxton first: followed by Bath, Schlangenbad, Wildbad, Gastein, Plombierres, Pfeffers, and Teplitly.

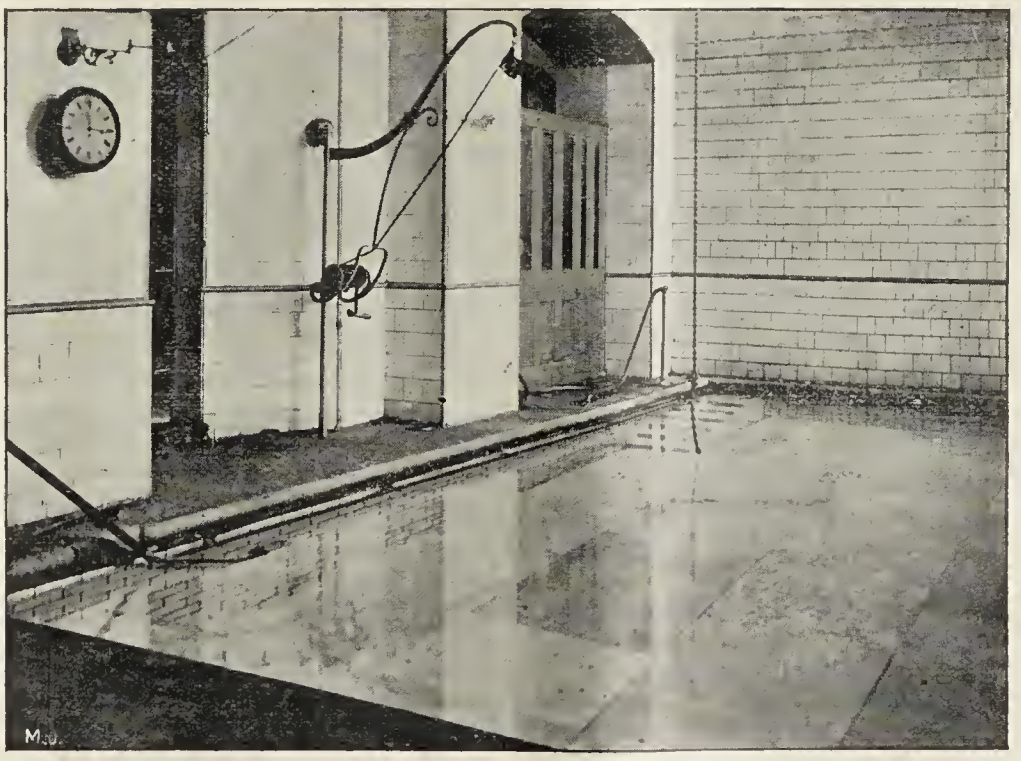
In addition to gout, the waters are employed with marked success in rheumatism, sciatica, and lumbago, and are most efficacious in diseases of the stomach, bladder, liver, kidneys, and nerves.

The average number of bathers during the last 20 years has been nearly 63,000 per annum.

The baths are open throughout the year, and although the waters may be safely used in winter—and, indeed, the experience is that patients obtain more benefit in winter, spring, and autumn than in the hot months of summer — the charges are half-price from November 1st to March 1st. The advantages of Buxton as a winter health resort are gradually becoming more appreciated.

For drinking purposes the medicinal water is obtained at the Pump Room, a handsome building presented to the town in 1894 by the Duke of Devonshire. It is furnished with a polished counter, with an Italian marble top, fitted with five silver fountains through which the water flows in a continuous stream. Over 1,000,000 glasses of the mineral waters are drunk every year. A free supply is given to the public pump at the west end of the pump room.

On Saturday last their Majesties the King and Queen visited Buxton. The Devonshire Hospital was first inspected, the senior medical officer, Dr. Turner, conducting the Royal party over the wards. The King, noticing that the operating-table in the accident ward was only a wooden one, promised to give a modern table to the hospital. After leaving the hospital, their Majesties visited the Pump Room, where the chairman of the Council, Mr. Abm. Brown, was presented to the King, and read an address of welcome on behalf of the Council and inhabitants of Buxton. The King and Queen then asked for glasses of the famous mineral water, the Queen remarking that it was very nice. The natural and hot baths were also visited and carefully inspected. Before leaving for Chatsworth their Majesties inscribed their names in the visitors' book.



NATURAL BATHS (GENTLEMEN'S SWIMMING BATH).

OFFICIAL & PERSONAL.

WEST RIDING ANALYST.

APPLICATIONS are shortly to be invited by advertisement for the office of public analyst to the West Riding, rendered vacant by the death of Mr. A. H. Allen, of Sheffield. The retaining fee is to be one of £200 per annum, with 6s. for each sample of food, drugs, and water analysed, and a special allowance for chemical examinations.

COVENTRY SEWAGE FARM SUPERINTENDENT.

IT is understood that Mr. W. Main, manager of the Wellingborough sewage farm, has been appointed as successor to Mr. W. J. Beavan as manager of the Coventry Corporation sewage farm, the salary being £250 per annum.

GLASGOW AND THE DEPUTY TOWN CLERK.

A PROLONGED discussion took place at the Glasgow Town Council last week in regard to the resignation of Mr. James G. Monro, interim town clerk.

The special committee's recommendation was that Mr. Monro's resignation be accepted, that he be paid at the rate of £1,000 per annum during the year he had acted as interim town clerk, and that he be paid an honorarium of £700 in respect of his long and valued services as a deputy town clerk. The counter proposals were that no honorarium should be paid; that the honorarium should be £1,000; and that the salary be £700, with an honorarium of a like amount.

Eventually the committee's recommendation was adopted by a considerable majority.

At a meeting on Wednesday of a special committee on the town clerkship, it was agreed to recommend that Mr. John Bowers, town clerk deputy, be appointed town clerk for three months, at a salary at the rate of £1,000 per annum.

BRADFORD REORGANISATION.
The Town Clerk's Department.

MR. F. STEVENS, the Town Clerk of Bradford, has drawn up a special report dealing with the increased work of his department, and the inadequacy of his staff to cope with it. Mr. Stevens stated that the new deputy town clerk (Mr. Percy Saunders) would experience the greatest difficulty in performing the work attached to his office, and it was necessary in order to maintain the efficiency of the department, to rearrange the staff.

He proposed to change about the work and responsibility attached to the two assistant solicitors in the department, and to introdnce another assistant to help both, so far as possible, in the criminal and common law work. In view of the extra responsibility thrown upon the assistant solicitors, Mr. Stevens further recommended an advance in their salaries of £50 each; also, owing to the great growth in the clerical work, the appointment of another shorthand and type-writing clerk at a salary of 30s. per week.

By such changes he thought the new deputy would have a chance of success which otherwise would be imperilled, especially in view of the fact that the next parliamentary session, which begins in February, will be a very heavy one, there being three Bradford Provisional Orders, the opposition to the Rivers Board Bill, and two other heavy oppositions which are pending.

HALIFAX GAS MANAGER'S SALARY.

AT the last meeting of the Halifax Town Council a recommendation was submitted by the Gas Committee in favour of advancing the salary of Mr. John Wilkinson, the gas manager, from £500 to £600 per annum. It was urged, in opposition, that Mr. Wilkinson had only been in the service of the Corporation a little over 12 months, and that so large an increase was not warranted after so short an interval. The committee enlarged on the improved position to which the gasworks had been brought nnder Mr. Wilkinson's management. By 27 votes to 23 the Council defeated the proposed increase.

MAIDSTONE TOWN CLERKSHIP.

MR. LANCE MONCKTON, consin to the late Sir John Monckton, was on Satnrday morning appointed Town Clerk for the borough of Maidstone.

NEWCASTLE TRAMWAYS MANAGERSHIP.

SATURDAY was the last day for receiving applications for the post of general tramways manager for Newcastle Corporation, rendered vacant by the resignation of Mr. A. E. le Rossignol. The position is worth £700 a year, rising by increments of £50 to £800. Between 70 and 80 applications have been received.

BOLTON AND THE LATE TOWN CLERK.

THE Bolton Town Council passed the following resolution last week:—

> That the Council, as their first and most impressivo act of this day's proceedings, refer with feelings of deep sorrow to the absence from their assembly of the late Robert Gudgeon Hinnell, the venerable Town Clerk of the County Borough of Bolton. As chief official of this borough for a period exceeding 40 years, the deprivation of his energy and ablity and wide experience must to this borough be severely felt. The Council are grateful for the conspicnous services he has rendered, and with confidence regard those services as a guiding influence in their futnre work. Privileged to aid in carrying out and live to see the beneficial effect of Bolton's corporate enterprise, his sudden removal at a most important period when engaged in works which will eventually result in the carrying ont of undertakings of greatest importance to the borough, the Council most sincerely deplore his death, and respectfully offer to his family their assurance of heartfelt sympathy in their bereavement.

IT was claimed for Mr. Hinnell that he was the oldest town clerk in England. He was 77 years of age, and had held office for 40 years. His record, however, is beaten by Mr. John Eastham, town clerk of Clitheroe, who has occupied the position since 1862, and before that—from 1853—was clerk to the Local Board of Health. Mr. Eastham is now close upon 78 years of age, and is still active in the discharge of his duty.

EXETER TRAMWAYS MANAGER.

THE Tramways Committee of the Exeter City Council reports having appointed Mr. Hederstead, in the employ of the London County Council, in connection with the tramway system, as chief officer of tramways in Exeter, at an inclusive salary of £400 for three months' contiuuous service and for consultation and advisory services for a further period of nine months. Mr. Hederstead will take up his duties next week The committee also reports that arrangements will be made forthwith for extending the tram line through Heavitree.

BRIGHOUSE TEACHERS' SALARIES.

BRIGHOUSE Education Committee last week sanctioned increases in teachers' salaries at provided and non-provided schools amounting to £172 for the year, the largest single increase being £10. Two-thirds of the total increases were brought about by the action of the automatic scale of salaries adopted by the committee a few months ago, and went to the younger teachers in the employ of the committee.

SALFORD FIRE BRIGADE CHIEF OFFICER.

AT a meeting of the Salford Watch Committee last week it was decided to appoint Mr. Francis Myers chief officer of the Salford Fire Brigade for six months, in succession to the late Mr. A. Bentley.

The new chief officer joined the Salford brigade over thirteen years ago as an ordinary fireman, and he was quickly promoted acting engineer, and next engineer. During the last three years he has been second officer of the brigade.

Before joining the Salford brigade Mr. Myers was for nearly five years connected with the Bradford (Yorkshire) fire brigade. He is a very popular officer, and dnring his connection with Salford he has done much valuable work in perfecting the outfit of the brigade.

The committee decided not to appoint any second officer, and the position will be reviewed at the end of six months.

COUNCIL'S DILEMMA.

LANCASTER AND A CANCELLED MARKET SCHEME.

SOME extraordinary fluctnations in policy have been shown by the Lancaster Corporation in regard to its market undertakings. Some time ago an hotel was purchased from the Corporation by a Mr. Mitchell, it being mentioned in the sale conditions that it was the intention of the Corporation to build a large covered vegetable market on part of the adjoining land retained for that purpose. Rather more than twelve months ago, however, public opinion changed, and objection was taken to a scheme which was to cost £10,000 or £12,000 on the ground that it would not yield an adequate return. So strong was the opposition, that the Council cancelled an order that had been placed for a single span iron roof for the market, and paid a considerable sum in compensation. Then Mr. Mitchell insisted on the fulfilment of the obligation which, he said, rested with the Corporation to build the market as originally intended, or, alternatively, to take back the hotel at the price he had given for it. A modified scheme for a small vegetable market was put forward, but this did not satisfy either Mr. Mitchell or the opponents of the market scheme.

A committee was appointed to confer with Mr. Mitchell and his solicitors, and, as the result of the negotiations, a meeting of the Council in committee was held this week. After much discussion, it was agreed that the vacant land adjoining the hotel (on which it was proposed originally to build the market) should be handed over to Mr. Mitchell, and that the Corporation should be relieved in return of all obligation, legal or moral, to erect a market on what is known as the King's Arms site. There are also other minor conditions.

The effect of the arrangement will be to allow the Corporation, if it is thought desirable, to alter the existing market so as to provide accommodation for the farmers and market gardeners who bring prodnce to Lancaster, and who at present stand in the open street. The Corporation retains the Assembly Rooms in King Street, and other premises with a frontage to the same street. It is estimated that the giving up of the land to Mr. Mitchell, the compensation paid to the contractors for the market roof, and other expenses connected with the negotiations, will amouut to about £5,000. The Corporation, however, is released from a difficult position, a law suit has been avoided, and the Council is free to deal with the existing market in any way that seems to accord with public opinion.

IMPROVING BLACKPOOL.

IT is sought to make several very important improvements to Blackpool under a new Omnibus Bill, to be promoted in the ensuing session of Parliament. Street-widening and re-construction of "Skew Bridge"—so designated because of its extreme narrowness—are provided for. Another clause is to authorise the Corporation to constrnct additioual tramways, for which it has already running powers.

Some time ago the Corporation purchased the sea-water works, and in the present Bill it asks that in connection with the authorised new promenade and parade works at North Shore, authorised by the Blackpool Improvement Act, 1899, it be empowered to acquire the sea-water well, apparatus, and pipes; and further, that its present powers in regard to the taking and supply of sea water be enlarged, and the provisions of the Blackpool Sea Water Act, 1873, be amended.

Another clause in the Bill is to extend the borrowing powers of the Corporation, and to make other provision in regard to existing and future loans and other financial matters. This applies mainly to the Corporation's electricity undertaking. Under the existing provisions of the Act of 1875, the Corporation cannot borrow for this undertaking a sum exceeding in amount the equivalent of a two-years' rate, bnt under the new clause it will have more a titude in this respect.

RIVAL ILLUMINANTS.

Gas Compared with Electricity in Regard to Cost and Power. Gleaning Results from All Quarters. The Experience of Various English Towns. Improved Methods Have Given to Gas as a Street Illuminant a New Lease of Life.

IN the race for street lighting, which is going to win—electricity or incandescent gas? As yet the resnlt lies in the lap of time, but the advocates of both systems are both numerous and enthusiastic.

Those who favonr gas say that street lighting by electricity has already had a snfficient trial, and that, in the main, it is less satisfactory than incandescent gas, besides being at least twice as expensive. On the other hand, so satisfied are the advocates of electricity with their experiments that they not only propose to continne them, but contemplate extensions. Not that they regard the modern system of gas lighting with any disfavour; on the contrary, the general opinion seems to be that the improved methods, into which the nse of incandescent mantles enters so largely, have given to gas, as a street illuminant, a new lease of life.

Cheap and Powerful.

In London no fewer than twenty-five of the metropolitan borough councils are reported to have more or less completely adopted incandescent gas as their system in preference to electricity. The new thoroughfare Aldwych and its extension, Kingsway, are both, it appears, to be lighted by gas by the Westminster Borough Council. At Manchester, too, the incandescent system of gas lighting is declared to be more effective and economical than electric lighting, and is being extended, though not without some talk of experiments "to be made on fair and equal bases with the view of deciding the relative cost of the two systems." Here there are but few public electric lamps in use, and those have been fixed for a special purpose. Much the same state of things is reported from Oldham, the authorities there having come to the conclusion that incandescent gas can be used at one-third the cost of electric light of the same power.

An interesting inquiry has just been made as to what is being done in Yorkshire towns in regard to this matter. Bradford finds a vast difference between the cost of gas and the cost of electricity. Gas entails an expenditure of £2 6s. 8d. per lamp per annum; electricity £12 10s. per lamp per annum to midnight only. There are 11,217 gas lamps, incandescent burners being exclusively used, and each lamp is of 45 candle power. The arc lamps number 51, and are of the open type of 1,000 (nominal) candle power. For rather more than five times the cost of gas an illuminant of 18 times the brilliancy is secured.

Reports from Yorkshire Towns.

At Sheffield the whole of the street lighting is done by gas, and there is at present no intention of introducing electricity. The cost varies from £1 7s. 6d. to £3 19s. 2d. per lamp per annum, according to the power used.

The experience of Hull is that arc lamps are too expensive for general lighting, and there is a difference of opinion as to the relative merits of the Nernst electric and the corresponding gas lamps. There are 24 arc lamps, 20 ½-ampere Nernst lamps and 24 ¼-ampere Nernst lamps. The arc lamps are of 1,000 candle power (nominally) and cost £22 per lamp per annum; while the largest gas lamps (5-light clusters of between 300 and 400-candle power) cost £7 10s. Here, as in Bradford, there is, as yet, no scheme on hand for either extending or curtailing the electric system.

In Halifax two miles of streets in the centre of the town are lit by electricity, the cost being at the rate of £849 per mile, as compared with £57 per mile for 190 miles of streets illumined by gas. Both systems seem to give pnblic satisfaction, but here again there is a feeling that the incandescent gas lighting is the more effective and economical of the two. The matter, however, has yet to be thoroughly considered by the responsible Corporation Committee, which proposes shortly to discnss the question of possible electrical extensions.

The Huddersfield Corporation confines its electric street-lighting to a small area in the centre of the town, and this is the case with Barnsley, where, however, its effectiveness has so impressed the authorities that they propose to extend the system. To a similar extent, Wakefield finds electricity useful, besides being, in consideration of the particular circumstances, neither less effective nor more costly than gas.

Leeds Successful Electric Light Undertaking.

From the shop-keepers' point of view, the arc lamps are a decided acquisition in some cases. This seems to be so in the Shipley Urban District, where experiments are being made with the idea of extending the system. At Batley, street lighting by electricity is conducted only to a limited extent, and partakes largely of the nature of a preliminary trial. Whether it will be continued or extended depends on reports that have yet to be made to the Lighting Committee.

The Urban District Council of Heckmondwike, on the other hand, owning no gasworks itself, is making a feature of street electric lighting, the cost being the same as that for gas. About one-third of the street lamps are lighted by electricity; and, although there is a diversity of opinion as to whether incandescent gas or electric light is the more effective, so satisfied are the authorities with the arc-lamp illumination that they contemplate an extension.

In a few weeks' time the chief tramway thoroughfares of Leeds for a radius of one mile from the centre of the city will be lighted by electricity in place of gas. This means that the present number of arc lamps will be nearly trebled.

An attempt is being made to increase the arc lamp's capacity for giving light. The older forms of arc lamp in use in Leeds burned for a period of about 30 hours only; the new will last more than twice that time. A saving is thus gained through reduced labour. The Leeds Corporation's electric lighting undertaking ranks as one of the most successful and cheapest in the country, and the street-lighting department is able to keep the arc lamps going for as little as 1¼d. per unit, the cost working out at practically no more than that of gas.

When the present extension scheme is carried out, Leeds will have some 650 arc lamps lighting its main streets, a nnmber far in excess of any other Yorkshire town, and many other large towns in the country.

A FEAT AT PLYMOUTH.

A RECORD of a very plucky achievement on the part of the distinguished engineer and lighthouse expert, Mr. W. T. Douglass, comes to hand this week.

The Corporation of Plymouth wished recently to have its sewage outfall examined. The outfall occurs at a depth of 70ft. under water, and several eminent engineers rather shrank from the task. Mr. Douglass, who had not had on a diving dress for twenty-five years, and is nearly fifty, went into regular training for the work. Finally, for two periods of a week each, he spent from two to four hours every day 70ft. down. When the tide was low it was not easy to see far in the Tamar water, bnt when the tide came in from Plymouth Sound objects could be observed at half-a-dozen yards, This performance is not extraordinary for a practised diver, but for a man of Mr. Douglass's age, who has not made any attempt to dive for a quarter of a century, it is nnique.

LARGER AREAS MOVEMENT.

THE CASE FOR LIVERPOOL.

LIVERPOOL and Hanley are seeking to extend their boundaries, the former by the inclusion of the township of Fazakerley, and Hanley by taking in a portion of the parishes of Milton and Stoke Rural. At both centres Local Government Board inquiries have been held this week.

Fazakerley is on the north-east side of Liverpool, and has an area of 1,710 acres. Its popnlation was 1887 in 1901, but it has increased so rapidly in the last three years that it is now estimated at 3,500; whilst the rateable value of the district is now £32,431, and the assessable valne £27,363. The rapid increase of population during recent years is largely due to the extension of the Liverpool tramway system in the direction of Fazakerley. Liverpool Corporation already owns 348 acres in Fazakerley, and, when the addition of certain burial grounds is shortly made, one-qnarter of the whole district will belong to the city. One of the main reasons for the proposed extension is the existing difficulty of draining the district except by means of the Corporation sewers.

HANLEY AND MILTON.

IN regard to Hanley the original proposal of the Corporation was to take in the whole of the parish of Milton, containing 1,397 acres and a population of 2,785, and the whole of the Stoke Rural District (parishes of Bagnall and Stoke Rural), containing 4,954 acres and a population of 4,808. That proposal fell into abeyance in consequence of the introdnction of a much larger scheme for the federation of the Pottery towns. It was found impossible, however, to carry out this scheme, and, on its being dropped, the proposal of the Hanley Corporation was renewed. After an informal inquiry the Local Government Board suggested that the Council scheme was rather too pretentious, and shonld be modified. The present proposal, therefore, is to annex a portion of the parish of Milton, containing 199 acres, and 1,138 population, and portions of Botteslow and Bucknall Wards of the parish of Stoke Rural, containing 440 acres and 227 population. In the event of the application being granted, the Council proposes to add a portion of the Milton area to the Providence Ward and a portion to the Northwood Ward, and to add the whole of the annexed Stoke Rural area to the Eastwood Ward.

POOLE AND BRANKSOME.

PROGRESS is being made with the arrangements for the incorporation of the Urban District of Branksome in the municipal borongh of Poole. Wednesday, the 25th inst., has been fixed as the date for the holding of the usual local inquiry. It is understood that there is a slight difference of opinion with regard to the number and boundaries of the wards to be added. The proposal of the Poole Corporation is that there shall be nine wards, which will give a Council of 36 members—nine aldermen and 27 councillors. There is a feeling at Branksome that this will not fully meet the requirements of the case, and that provision should be made so that Branksome Park—which has a distinctive character of its own—may have separate and distinct representation.

MANCHESTER AND SALFORD.

THE Special Committee of the Salford Corporation which has been considering the question of the federation of Salford and Manchester is now engaged in preparing its report.

The committee has accumnlated a great deal of information upon the subject dnring the past six months or so, and the report will deal thoroughly with the positions of the two municipalities from the points of view of finance and of administration.

The report will be presented to the Council in due course, but it is expected that some weeks at least will elapse before the committee will have finished its labours.

MUNICIPAL MOTOR VANS.

ARE THEY DESIRABLE?

*(By Mr. Wm. N. BLAIR, Engineer and Surveyor, St. Pancras Borough Council.)**

FOR some time past I have been accumulating information on the subject of the use of motor vans for municipal purposes. I have seen most makes of vans now in use in this country, and have been present at various meetings when their use has been discussed. I have also had personal interviews with several manufacturers, and regret to find that the concensus of evidence obtainable is by no means so favonrable to the use of motor vans for municipal purposes as I hoped to be able to submit.

Their cost is considerable, varying from £525 for a flat-topped carriage with open rail sides, suitable for carrying sacks or casks, but not for loose material, up to £750 for a waggon body, with a water-van body interchangeable.

The evidence obtained from users of such vans indicates that repairs are freqnently necessary, and involve a cost from 10 to 15 per cent. per annum.

Questions asked as to their comparison with horse traction on the point of cost produced answers which are by no means unanimous; but it would appear that for hanlage purposes it is necessary to have a full load, a long lead, and constant employment to produce economical results. In some instances a motor van is a satisfactory vehicle for hauling materials which can be quickly loaded up, and are of considerable weight, owing to its quicker speed.

For street watering purposes, which can be continued night and day, a motor van may be satisfactorily employed, provided means for filling quickly are available.

For the purpose of collecting house refuse, however, the evidence I have obtained is all to the one conclusion, that motor vans are not a success, owing to the nature of the work occupying too much time in loading, and the short period during which the motor is actually travelling, and, further, owing to the light character of the material not producing sufficient weight on the van load to make motor haulage economical.

Glasgow had a van so employed, but abandoned its use. Lambeth tried a motor for hauling house refuse, but the experiment did not prove a success. Hampstead had two vans collecting dust, and although their destructor was two or three miles outside the borough boundary, the work did not come out economical as compared with horse haulage.

The manufacturers with whom I have discussed the matter have, without exception, admitted that a motor van is not a suitable vehicle for the collection of house refuse, owing to the time occupied in moving only from door to door while filling a load large in bulk, but light in weight.

There is another point of view from which it appears to me that there is a material objection to their use for dust collection. Assuming that a motor van and trailer will contain as much as three ordinary dust vans, it follows that only one-third of the number of horses employed would be necessary as motors. There would, therefore, be only one-third of the number of points of call at one time, and the tendency would be to produce larger quantities at longer intervals, rather than that which is to be greatly desired, small quantities at freqnent intervals.

It will be obvious from the foregoing that the effect of this report is against the adoption of motor vans for dnst collection. I much regret this conclusion, bnt cannot avoid it.

THE Norwich Corporation is pressing the aid of attractive advertising into service. It has redneed the cost of the electric light from 5d. to 4½d. per nnit, and makes a prominent feature of an appeal to the citizens to "deal at their own shop."

---

* A report presented to the St. Pancras Borough Council.

A "PERSONAL CLEANSING" STATION.

AN INNOVATION AT ST. PANCRAS.

THE Borough Council of St. Pancras has established in conuection with its public health department a personal cleansing station. The station has now been in operation since the beginning of May, a period of eight months to the end of the year 1904, and during this period a total number of 1,798 persons have undergone a process of personal cleansing in the hot baths provided at the personal cleansing station, and their clothing has been sterilised in the steam disinfecting apparatus adjoining.

Only those persons who are affected with verminous or parasitic diseases have been received. A considerable portion of the persons treated have been school children under 14 years of age; and the number of these children is larger than actually appears in the return, because it is the custom of the Public Health Department to only class children under 10 years of age as children for statistical purposes in order to conform with the Registrar-General's returns and other statistics, so that children between the ages of 10 and 14 are classed among adults in the return of the personal cleansing station.

In a family where the school children sent by the teachers are infested with vermin or parasites, the probability is that the elder children and the mother would come with them in order to be cleansed and disinfected. The following is a complete table showing the proportion of males, females, and children in each of the three quarters last year:—

	Males.	Females.	Children under 10.	Total.
Second quarter	266	127	79	472
Third ,,	395	217	163	780
Fourth ,,	291	170	85	546
Total...	952	514	332	1,798

LONDON WATER PURCHASE.

HOW THE COMPANIES FARED.

ALDERMAN H. J. BUTTER, the Woolwich Borough Council's representative on the Metropolitan Water Board, puts the effect of the recent purchase in a striking manner in a report he has just made. He points out that—

	£	£
East London Company has only	54 for every	100 claimed
New River ,, has only	45 ,,	100 ,,
Grand Junction ,, has only	69 ,,	100 ,,
West Middlesex ,, has only	84 ,,	100 ,,
Lambeth ,, has only	78 ,,	100 ,,
Southwark & Vauxhall Company has only	63 ,,	100 ,,
Chelsea ,, has only	57 ,,	100 ,,
Kent ,, has only	73 ,,	100 ,,

The Board succeeded in getting the claims of the companies reduced by 20¼ millions; in other words, it has only to pay £60 for every £100 claimed.

A TOWN WITHOUT A PUBLIC FIRE BRIGADE.

NEW MILLS has a popnlation of 8,000, and the town contains calico printing works, bleach works, paper mills, cotton mills, engineering and engraving works, bnt has no public fire engine or fire brigade. The matter came before the Urban Council on Wednesday night. An attempt has been made to secnre the co-operation of Disley, Hayfield, and Whaley Bridge for the purchase and maintenance of an engine and a brigade, but without success. The Council decided to purchase hydrants and other appliances.

A REMARKABLE state of affairs has happened at Shavington, a considerable subnrb of Crewe. Recently the parish council erected some lamps. The ratepayers held a meeting, roundly denounced its action, passed a resolution protesting against the lamps being paid for out of the rates, censuring the Council, and requesting the latter to resign. For some nights following the lamps were unlighted. Now they are relighted, and there is a recurrence of excitement.

BOROUGH OFFICIALS HONOURED.

DINNER GIVEN BY THE MAYOR OF MARYLEBONE.

THE Mayor of St. Marylebone (the Rev. H. Russell Wakefield) is a fervent admirer of the work p rformed by municipal officials, and he has this week demonstrated his admiration. Last year, which was the first in his term of office, he gave a dinner to the borough councillors and chief citizens, and also one to the workmen (out-door staff).

On Monday the Mayor provided a dinner to the borough officers, which took place in one of the handsome halls of the Great Central Hotel. Besides the Mayor, who was in the chair, there were present Rev. L. T. Dodd, Aldermen J. Anglim, F. Trehawke Davies, Dennis, G. J. Elgood, J.P., J. Thomas; Councillors J. Lichtenfeld, C. Kempton, J. Lea-Smith, E. T. Fowler, H. Tatton Sykes, Dr. J. Fletcher Little, Lieutenant-Colonel A. J. Hopkins, W. Leaf, E. R. Debenham, C. Head, E. Penton, jun., W. H. Sands, Messrs. Herbert Wakefield and A. Wright; The officials present were the town clerk (Mr. J. Wilson), chief assistant clerk (Mr. A. Wilson), borough engineer (Mr. J. Paget Waddington), medical officer of health (Mr. A. Wynter Blyth), borough accountant (Mr. T. H. Puzey), electrical engineer (Mr. F. A. Wilkinson); Messrs. R. Harnett, T. George, A. J. Jarman, R. Rayner, A. H. Edwards, H. W. Newton, J. L. Harrison, A. McLean, E. Lumley, W. G. Ellis, D. L. Turbayne, T. Langston, J. P. Garner, H. W. Cooke, W. F. Sutton, E. S. Foot, R. Phillips, J. Hodges, G. F. Sutton, P. G. Hart, T. S. Latham, H. Middleton, W. Worville, H. Earle, C. Gabb, A. Perry, J. Knight, T. Bevan, T. G. Bacon, H. E. Curtis, J. D. Cairns, E. Sheriff, W. Crow, E. J. Jennings, C. H. Smyth, B. Pitt, G. Gunnell, A. H. Thomson, P. O. Hillman, H. J. Bantick, A. Timothy, O. L. Marchant, H. W. Drew, T. G. Langridge, E. J. Draper, G. H. Chillcott, F. McCarthy, E. G. Batcheler, F. A. Hill, W. J. Howe, G. A. Johnson, T. Kennett, G. Lightfoot, T. E. Jenkins, C. J. Bantick, W. E. A. Baillie, S. R. Weeks, H. R. Allen, F. Selley, W. C. Mapleson, T. Winter, T. Gorniot, E. J. Bickmore, A. Bridges, A. Williams, J. Hodges, jun., D. J. Andrews.

The Chairman having given the toast of "The King," whom, he said, was the chief official in the land, and "The Queen, Prince and Princess of Wales, and other Members of the Royal Family," Colonel E. R. Debenham proposed "The Imperial Forces," to which Lieut.-Colonel A. J. Hopkins and Trooper T. Kennett responded.

In proposing the principal toast of the evening, "The Officers of the St. Marylebone Borough Council," the Chairman passed very high encominms on the work of the officers—"that wonderful backbone of officialdom on which we rest," and said there never was anyone much more loyal, if so loyal, as their town clerk. (Applause.)

The Town Clerk, who was the first to respond, alluded to the recent words of the chairman of the London County Council, that the County Council did everything from the cradle to the grave, while he sat like a little cherub aloft. But he (the town clerk) did not look for help to the little cherub aloft, but to the man at the wheel. (Hear, hear.)

The Medical Officer of Health and the Borough Surveyor responded.

Alderman J. A. Michell, J.P., proposed "Other Local Officers," with which toast he coupled the names of the Clerk to the Marylebone Police-court (Mr. W. Crow), the Superintendent of the Police (Mr. Bantick), the Postmaster of the District (Mr. B. Pitt), and the Crown Surveyor of Taxes (Mr. Hillman), all of whom responded.

Other toasts followed.

THE Hampstead Borough Council has decided to purchase the nndertaking of the North-West London Electric Supply Company for £12,000. The purchase money is to be provided out of profits already made.

NOTES AND ANSWERS.

Rights of Members of Town Councils to Inspect the Accounts and Undertakings of the Authority on which they Act. Objecting to Assessment for Purposes of Inhabited House Duty. Burial Loans Repayments.

599.—**INSPECTORSHIP OF WEIGHTS AND MEASURES—Examination for.**—As a constant reader of your journal I beg to ask whether you can tell me the best way to set to work to qualify for the position of inspector of weights and measures. I have to attend a Board of Trade examinatiou, but have no idea of the requirements necessary for the examination. If you cau assist me by a reply through your publicatiou I shall feel greatly obliged.—"ETON."

We presume our correspondent has been appointed to act as an inspector of weights and measures, as only such as are actually appointed may attend the examination conducted by the Board of Trade, mere candidates for appointments being excluded. The Board of Trade holds these examinations under Sec. 11 of the Weights and Measures Act, 1889, in order to ascertain whether persons appointed as inspectors possess sufficient *practical* knowledge for the proper performance of their duties, and the Board must grant certificates to persons who satisfactorily pass such examinations. We are not aware that any official information has been published which would show exactly what is required at these examinations: obviously a candidate must be familiar with the Weights and Measures Acts to begin with. In this connection "Roberts' Handbook of Weights and Measures" (second edition, 1899, price 5s., published by Butterworth and Co., Bell Yard, Temple Bar, E.C.) may be found useful. The practical knowledge, however, can only be adequately acquired, we should think, by service under, or with, an inspector who has had practical experience. Our correspondent should request the secretary, at the office of Weights and Measures, 7, Old Palace Yard, Westminster, to furnish him with full information as to the subjects of the examination.

600.—**MEMBERS OF FINANCE COMMITTEE OF TOWN COUNCIL—Can he Insist on inspecting all Accounts and Vouchers of the Council?**—I am a member of the Finance and General Purposes Committee of our Corporatiou, which is composed of all the members of the council. I am desirous of inspectiug every account or voucher which is passed by each committee, with a view, if necessary, of making extracts for public use. I have been informed that I can only make extracts from those accounts which come before the committee of which I am a member, namely, four out of sixteeu. Does not the fact that I am a member of the Finance Committee give me the right to inspect auy account or voucher passed by any committee during the previous month?—"REFORMER."

We gather that the finance committee does not have before it all the accounts of the council, and that this limitation of its functions is imposed by the council. A member of the finance committee cannot, in our opinion, as snch, insist under the circumstances on inspecting all the accounts and vouchers of the council and its officers. We may point out, however, that the *treasurer's* accounts are required, by Sec. 233 (3) of the Municipal Corporations Act, 1882, to be open to the inspection of the council, and a member of the council may make a copy thereof, or take any extract therefrom. We should imagine, though the general legal right does not appear to exist, that our correspondent would be granted the opportunity, as a matter of courtesy, of inspecting any accounts and vouchers he may desire to see.

601.—**Has a Town Councillor or Member of a Committee the Right to Inspect Gas, Water, &c., Works owned by the Town Council and worked under the Committee?**—I should be pleased to have replies to the following questions:—

(1) Has a member of a town couucil the legal right to visit unofficially the works (gas, water electricity, &c.) owned and worked by the muuicipality?

(2) Has a town councillor who is a member of the Gas, Water and Electricity Committees the legal right to visit unofficially the works in counection with the above-named departments, the same being owned and controlled by the muuicipality?—"TUCKER."

It appears to us that a member of the committee of the council has no individual right of unofficially visiting and inspecting the gas, water, electricity, or other works of any undertaking which the particular committee in question may control. Still less can an ordinary councillor claim such a right. A similar question was dealt with in this column in our issue of March 4th last, and it will be useful to repeat what was there said:—"We are not aware of any authority in law under which our correspondent could claim the right as a member of the electricity committee of the town council to inspect at will the works of the council's electricity undertaking. The committee, as a body, may claim to do so, and it may also, apparently, delegate its powers and rights in the matter to one or more members of the committee. But a member of committee can ordinarily only act in and with his committee; and apart from it, and in the absence of any delegated power or trust from it, he seems to have no *locus standi* in the matter. We may refer to an analogous point arising under the Poor Law. The question had been raised from time to time as to whether a member of a board of guardians, or of one of the board's committees, could insist at will on visiting the workhouse or other institution belonging to the guardians. It was considered that no such general right could legally be claimed, and, accordingly, the Local Government Board, in the exercise of its statutory powers in the matter, and after due consideration of the general expediency of the proposal, issued an Order authorising individual guardians to visit at any time workhouses or other institutions under the control of the board to which they belong."

602.—**ASSESSMENT FOR PURPOSES OF INHABITED HOUSE DUTY.**—I have a house let at 11s. per week, and for rate purposes I am assessed at £15 10s. nett value, and £19 10s. gross. Until the last six months the assessmeut was £1 less in both cases, but a re-assessment has taken place, although the rent still remains the same. Since the re-assessment I have been compelled by the Inhabited House Duty Authorities to pay iuhabited house duty on £20, and when I appealed against same I was told that my gross value of £19 10s. was uear enough for £20, and again on writing them I was told that the assessment in force in the district had uothing to do with their ratiug. I shall therefore be obliged if you could kindly inform me if you think I am entitled to pay this house duty on the £20 (I believe this is the minimum amount they rate on), with a house let at 11s. per week, and rates at 9s. 8d. in the £ on the above assessment—viz., £15 10s., and if so, how the figures are arrived at.—"HARROW."

In the *Metropolis* the valuation list (which is revised annually by the Borough Councils) is to be deemed the annual value for purposes of assessing income tax under Schedules A and B of the Income Tax Acts. We understand, however, that our correspondent's property is outside the Metropolis. In that case the Income Tax Commissioners are not bound to regard the local assessments for rating purposes. The annual value for purposes of the house tax will then be the ordinary rack rent, or if the house is not let at a rack rent, the tax will be based on the full rent which the house would fetch in the ordinary way. We are not aware that the tax is limited to rents of £20 and upwards. It does not seem to us that our correspondent can effectively object to the assessment made.

603.—**URBAN COUNCIL ACTING AS BURIAL BOARD—Methods of Repaying Loans for Burial Purposes.**—In what manner may an urban authority, actiug as the Burial Board for its district, repay its loaus? Some loans procured several years ago by the district council with which I am connected are being paid off by equal yearly instalments of principal and interest combined. The council has recently had further loans for burial purposes, and I am informed that the repayment of the principal should be provided for by means of a sinking fund. Which is the legal method of repayment? and will you kindly refer to the section of the Burial Acts on which you base your reply.—"E. W. J."

The urban district council in this case will be in the position of a burial board, and subject to the statutes affecting such board. Sec. 19 of the Burial Act, 1857, applies the clauses of the Commissioners Clauses Act, 1847, to mortgages and other securities to be executed by burial boards. Sec. 84 of the latter Act provides for the discharge of money borrowed on the security of any of the rates by a sinking fund. A sum is to be set aside every year, and to be invested from time to time until it shall amount, with "compound interest or otherwise," to a sum sufficient to pay off the principal debt. The following section, No. 20, of the Burial Act of 1857, referred to, enacts that for the purpose of providing a sinking fund for paying off the principal money borrowed, the burial board shall once in every year set aside, out of the moneys charged by such mortgages, such sum as they think proper, being a sum equal to or exceeding one-fiftieth part of the principal money so borrowed. The Burial Acts do not appear to contemplate the repayment of burial loans by any other method than through a sinking fund.

604.—**ELECTRIC LIGHTING AND POWER PROVISIONAL ORDERS.**—(1) Where an electric power company has an Act of Parliament sanctioning its use of the streets of a burgh for the purpose of laying cables for the supply of electricity in bulk, is it competent for the municipality to apply for a Provisioual Order authorising it to supply electricity within the burgh for lightiug and power purposes, including public lighting?

(2) When a municipality seeks powers to become "authorised distributors" within the meaning of the company's Act, do such powers, if granted, sanction the erection of generatiug stations and the laying of cables for the purpose of giving a supply iudepeudent of the power company, or do they only sanction distribution by an arrangement ot purchase from the power company?

(3) Can a Provisional Order be applied for during the months of February or March?—"N. B."

(1) It is competent for the local authority to make an application in the matter, as, generally speaking, the private Act under which the power company operates does not in terms grant a monopoly to the company. It is improbable, however, that the Board of Trade or Parliament will, in the absence of special circumstances, confer on the local authority the right to generate electricity. It seems to us that the application to the Board of Trade shonld be limited to the distribution as distinct from the supply of electricity, and that ordinarily the local authority must come to terms with the company as to the taking of electricity in bulk from it.

(2) We think that "authorised distributors" cannot legally proceed to erect generating stations, or arrange for providing a supply of electricity independently of the power company. The power of the municipality in the matter will be limited to the erection and provision of such buildings, &c., as are required to distribute, as distinct from supplying and generating, the electric current. The company's Act, however, should be carefully read to ascertain what powers it has been granted, and what sphere is open to local authority which will not interfere with the practical monopoly conferred on the company.

(3) The Board of Trade rules require public notice of any intended application for a Provisional Order in this matter, to be given on or before the 1st November. Applicants must deposit maps, &c., of the district by the 30th November; and the Parliamentary agents must be prepared to prove compliance with the statutory provisions and the rules of the Board of Trade by the 15th January, and all such proofs must be completed on or before the 22nd February.

(We are compelled to hold over until next week a number of queries received.)

Official Advertisements.

CITY OF BRADFORD.

ELECTRICITY DEPARTMENT.

SECOND ASSISTANT ELECTRICAL ENGINEER.

APPLICATIONS are invited (subject to approval to the appointment being given by the City Council) for the post of SECOND ASSISTANT ELECTRICAL ENGINEER upon the Central Office Staff of the City Electrical Engineer and Manager, which is engaged upon the design and supervision of extensions, and the control of the generating, distributing, consumers, and other branches of the department's work through the various departmental staffs.

Applications will only be considered from persons who have practical experience of the generation and distribution of energy upon both the H.T.A.C. and the L.T.C.C. systems, are well up in modern general electricity supply practice, possessed of a good knowledge of mathematics and mechanical drawing, and competent to supervise the work of draughtsmen.

The duties will consist of generally assisting and carrying out the instructions of the City Electrical Engineer and Manager.

Canvassing Members of the Council will be a disqualification.

The person appointed will be required to devote his whole time to the duties of the office, and to reside within the City.

Salary £250 per annum.

Applications, in handwriting of the candidate, stating age, experience, and qualifications, together with copies of not more than three testimonials of recent date (which will not be returned), to be sent in time to reach me not later than the first post on Thursday, the 19th January instant, endorsed "Assistant Electrical Engineer."

FREDERICK STEVENS,
Town Hall, Bradford. Town Clerk.
3rd January, 1905.

METROPOLITAN BOROUGH OF GREENWICH.

APPOINTMENT OF A SUPERINTENDENT AT GREENWICH CEMETERY, SHOOTERS' HILL.

THE Council of the Metropolitan Borough of Greenwich is prepared to receive Applications for the position of SUPERINTENDENT at Greenwich Cemetery, Shooters Hill, at a commencing weekly wage of £2 5s., together with house, coal, and gas.

The person to be appointed should not be more than 45 years of age; he should be a practical gardener, and good writer, and preference will be given to one having had experience in the management, or assisted in the management, of a Cemetery. The person appointed shall not on retirement claim, or be entitled to, any pension under the Superannuation Allowances Act, 1866.

Applications must be in the handwriting of the applicants, on forms to be obtained from the undersigned, stating age and previous experience, accompanied by copies of not more than three recent testimonials, and must be sealed up, and endorsed outside "Application for Cemetery Superintendent," and must be sent in, addressed to me, before noon on Monday, January 23rd, 1905.

Canvassing the members of the Council will be a disqualification.

FRANCIS ROBINSON.
Town Clerk.

Town Hall, Greenwich, S.E.
12th January, 1905.

CITY OF BATH.

A JUNIOR CLERK is REQUIRED in the Town Clerk's Office, at a salary of £1 per week. Previous experience in municipal and legal work desirable. Good hand writing and knowledge of shorthand required. Apply in own handwriting, with references, to Town Clerk, Guildhall, Bath, on or before Tuesday, 17th inst.

MUNICIPAL OFFICES.

A GENTLEMAN wishes to strongly recommend an ex-Articled Clerk (admitted), with exceptional qualifications, for an ASSISTANT CLERKSHIP. Write to Mr. MONTAGUE BROWNE, Northampton.

JUNIOR CLERK, 20, seeks Re-engagement, One year's experience. Good references. Write "Dinn," Summerhill, Margate Road, Ramsgate.

SUN FIRE OFFICE FOUNDED 1710

SUN FIRE OFFICE

HEAD OFFICE:
63, Threadneedle Street, London, E.C.

Branch Offices in London:
60, Charing Cross, S.W.
332, Oxford Street, W.
40, Chancery Lane, W.C.
4, Mincing Lane, E.C.

BIRMINGHAM .....10, BENNET'S HILL.
BRISTOL..... CORN STREET.
LEEDS.....SUN BUILDINGS, 15, PARK ROW.
LIVERPOOL.....SUN BUILDINGS, 6, CHAPEL-ST.
MANCHESTER..... 71, KING STREET.
NEWCASTLE..... 19, COLLINGWOOD STREET.
EDINBURGH.....40, PRINCES STREET.
GLASGOW..... 42, RENFIELD STREET.
DUBLIN .....10, TRINITY STREET.

Funds in Hand, £2,535,800

SULPHUME
(SULPHUR DIOXIDE)
FOR
ROOM DISINFECTION
As adopted by the WAR OFFICE, and numerous HOSPITALS, CORPORATIONS, and other SANITARY AUTHORITIES.

MAKERS AND PATENTEES,
A. BOAKE, ROBERTS & CO., Ltd.,
STRATFORD, LONDON, *ENGLAND*.

DELICIOUS COFFEE.
RED
WHITE
& BLUE
For Breakfast & after Dinner.

In making, use LESS QUANTITY, it being so much stronger than ORDINARY COFFEE.

Official Advertisements.

BATTERSEA BOROUGH COUNCIL.

TO ELECTRICAL ENGINEERS.

THE Council invite Applications from persons, not less than 28 years of age, for the Appointment of ELECTRICAL ENGINEER, to take entire charge of the Electric Supply Department and the running of the station. Applicants must have had experience in the working of a three-wire continuous current system.

Commencing salary £400 per annum.

Forms of application and particulars of duties may be obtained at the Town Hall, Lavender Hill, S.W., and must be delivered to me, duly filled up and accompanied by copies of not more than four recent testimonials, under cover, endorsed "Electrical Engineer," by midday, Tuesday, 31st January.

The person appointed will be required to reside within the borough.

Personal canvassing strictly prohibited.

W. MARCUS WILKINS,
Town Clerk.

12th January, 1905.

WANTED, Appointment as Storekeeper, &c. (or Assistant) to Public Institution. Abstainer. Age 30. Nichols, Regent Street, Leighton Buzzard.

WARD & MACONIE,
15, HANOVER STREET, LONDON, W.
Municipal Robe Makers and Court Tailors.
PRICE LIST ON APPLICATION.

Third Impression of Third Edition of "RED CODE," 1904. Fully Revised. Complete, up-to-date Edition of Code and other documents for Schools under Parts II. and III. of Education Act, 1902.

1s. net. Post free 1s. 3d., from Educational Supply Association, Ltd. 42a, Holborn Viaduct, London, E.C.

An admirable Food of the
EPPS'S
Finest quality and flavour.
COCOA
Nutritious and Economical.

MUNICIPAL JOURNAL
FRIDAY, JANUARY 13, 1905.

NOTES AND COMMENTS.

Municipal Small Loans.

IF the average councillor pays due attention to everything that has been published during the last few days concerning small municipal loans, or municipal savings banks, whatever he is pleased to call the new departure in local government finance, he will find the greatest difficulty in making up his mind. In the opinion of the borough treasurer of Bury, the system has already been demonstrated a failure. Very little money has been raised by it, and what has been raised has not been worth the trouble and expense of raising. The proper course is to encourage the savings banks themselves to invest with the municipalities. This is the Bury borough treasurer's view. On the other hand, the *Globe* has published a leading article headed "Banking and Municipal Trading," in which an endeavour was made to prove that the system of short loans has already made such enormous strides that it was interfering with the business of banking. The *Globe* said—

> Municipalities now both raise capital by short loan borrowing, and employ the proceeds for purposes which formerly had to

be largely accomplished by banking advances to contractors and others. Furthermore, this rate-supported rivalry absorbs much of the floating capital which would otherwise be placed on deposit bearing interest.

According to the *Globe*, and in this statement we are in cordial agreement, the chairmen of joint stock banks have been complaining of the injury done to the banking business by "this newer form of municipal trading." It will possibly be objected that "short loans" are not necessarily the same kind of thing as "small loans," but our reply is that both are part and parcel of the system by which it is hoped to avert the fulfilment of the bankers' threat to "stop supplies." The *Globe* adds that the municipalities are offering more generous terms than the banks can afford, and that "this most unfair and illegitimate competition" leads "directly to jobbery." Now, the banks must be hard hit if their journalistic representatives write in this fashion—hit, too, it must be remembered, by a development a part of which the Bury borough treasurer describes as a failure, and cannot support. On the top of these two extremes we have the decision of the Islington Borough Council—a unanimous decision, arrived at without any appreciable difference of opinion—to inaugurate a scheme of "borrowing for capital expenditure by means of what have been termed 'short-term mortgages.'"

Mr. Buxton's Report.

THIS week we publish the report made by the borough treasurer of Bury (Mr. R. W. Buxton), and next week we shall publish the table containing the material upon which he based his report. We have a copy of the table before us, and, in our opinion, it does not justify the sweeping condemnation Mr. Buxton makes. One defect of the report is that we are not told how long the system has been in operation at the various towns referred to. If it is of recent inauguration, it is unjust to condemn it because the results do not approximate towards those of a successful private banking business. There is nothing in the report, either, to show us the extent to which the system has been made known to the ratepayers. In those towns where, to our knowledge, it has been well advertised the verdict is a favourable one. At Devonport, where the scheme has only been in operation about two months, the results are already "very satisfactory." At Middleton £790 has been raised since last April, but the official to whom the questions were addressed does not consider the result worth the expense and trouble, although he replies "Not at present" to the immediately preceding query, "Do you require additional staff, or is there any additional cost?" A system that brings in £790 without any expense and without the employment of additional staff can scarcely be described as unworthy the expense and trouble. At Bolton £50,000 has been raised, and the result is "certainly" worth the effort. It is obvious from the replies to Mr. Buxton's questions that the scheme can be made a success if worked properly.

Expense and Labour.

TO turn to Mr. Buxton's report proper, we find him making the following statement:—

> It will probably be argued that the expense will be very small and the labour not worth consideration, but where the staff is already worked to its full capacity the engagement of additional clerks would be absolutely necessary, and the expense, as well as the labour, would be of no small dimensions if an amount worthy the effort is to be received, retained, and dealt with.

Now, of the nineteen towns to which Mr. Buxton wrote not one indicated that the adoption of the system necessitated additional staff or involved any appreciable additional cost. So that the assumption that more clerks would be "absolutely necessary" is not supported by the evidence. Mr. Buxton also raises the question of stamp duty, and it is interesting to see how Islington disposes of this point—

> We understand that one disadvantage of accepting such small sums is the additional cost of stamp duty on the mortgage; but we think, in view of the advantages and the security offered, it is not unreasonable to require the investor to bear such additional cost.
>
> The stamp duty on a mortgage exceeding £10 and not exceeding £25 is 8d.; on sums exceeding £25 and not exceeding £50, 1s. 3d.; and on sums exceeding £50 and not exceeding £100, 2s. 6d. The stamp duty which the Council has hitherto paid on mortgages has been 2s. 6d. per cent. We do not anticipate much difficulty on this point.

Evidently those difficulties which the borough treasurer of Bury considers insuperable the Islington Borough Council regards as incidents. Mr. Buxton also refers to the risk of misappropriation, which, of course, is common to every department of a corporation handling money. That risk, however, has not acted as a deterrent hitherto, and it does not appear to have been a vital consideration to the nineteen corporations. At any rate, no mention is made of it.

Islington Conclusions.

WE have already contrasted one of Islington's statements with Mr. Buxton's, and other of the principles upon which the London borough is acting are not uninteresting. The points which particularly engaged the attention of the Islington Finance Committee were—first, the minimum amount which should be accepted on loan; secondly, the rate of interest to be offered; and thirdly, the period for which loans of this class should be accepted. The committee came to the conclusion that, with the view of attaching public interest to the scheme and attracting the class of investors who, it is hoped, will avail themselves of this form of investment, the Council should fix a limit of £10, loans being accepted of this amount and upwards in multiples of £10. With regard to the rate of interest, it is proposed to offer £3 per cent. per annum, payable half-yearly on the 31st March and the 30th September. Money will be taken up for terms of either 18 months, three years, or five years, at the option of the lender, and repayable by three months' notice on either side, and the security offered will be a mortgage deed under the seal of the Council. The committee concludes:—

> We have, since the last meeting of the Council, had an opportunity of reconsidering the report which it will be remembered we then withdrew. We, however, adhere to it, being of opinion that, having regard to the convenience which it is proposed to afford to persons desirous of investing money in small sums, and to the expenses attaching to such a mode of borrowing, the Council would not be justified in raising money by this means, at all events for the present, at a rate exceeding 3 per cent.

This is the rate of interest paid in the majority of cases alluded to in the Bury return. On the whole, we cannot see that Mr. Buxton has made out a case against municipal small loans.

Unemployed Problem in Scotland.

GLASGOW is evincing a desire to follow London in regard to relieving the unemployed on really broad lines. The movement, however, is not the work of a day. Glasgow, like other large towns and cities, for years has felt that with advancing commercial prosperity there is increasing poverty. It almost seems as though a wedge is being driven in between the rich and the poor, making the poor poorer and the rich richer. Social reformers have still to come to some agreement as to the nature of that wedge. The agitation in Glasgow has eventuated this week in a conference of representatives of town councils, parish councils, and trades' councils, convened by the Corporation of Glasgow. The object was really to methodise efforts already put forth to solve the problem, or rather problems, connected with unemployment. The vital point of the matter—land—was referred to in a document submitted for consideration of the conference, embodying proposals for the employment of the unemployed and for prevention of vagrancy and other purposes. The proposals were to the effect that (in burghs and parishes) boards should be created with power to purchase or lease land and to set up and manage labour colonies, such boards to be composed of equal numbers from the members of town and parish councils, and that power should be given to co-opt ex-members of local boards; that to defray the cost of carrying on the board powers should be given to levy a separate rate; that county councils should be empowered to combine with the board for the acquisition of land; that the board should have the sole control and management of all matters referring to unemployed vagrants and beggars: that the board should have power to send to labour colonies such able-bodied persons able to work as might be found necessary; that all other persons who were not able to work and who had no visible means of subsistence, should be taken before a Magistrate and committed to a poorhouse. It was further suggested that existing statutes regarding vagrancy, begging, inebriety, loitering, &c., should be strengthened and vigorously enforced; and that in regard to persons employed in a colony the laws relating to settlement and removal should apply as if the colony was their home and place of residence. Many methods of solving the question of unemployment in Scotland were discussed—even so original a one as constructing a deep-water channel between the Firth of Forth and Loch Lomond, which would lead direct into the Clyde and the western ocean. But the main outcome of the conference is that a Government inquiry is to be pressed for. The intention is that a Government Departmental Committee should be appointed, consisting one-half of members or officials of the departments concerned and one-half of well-known members of public bodies, to inquire into the question of providing employment for the recurring number of the unemployed. Personally, we do not have any very great faith in Government action, but, as constituted, the committee may do good work, and the full investigation it is likely to give matters should result in good.

The Government and the Telephones.

RUMOUR has been busy this week with the intentions of the Government towards the undertaking of the National Telephone Company. There is one thing, however.that maybe taken for granted,and that is that no agreement can be entered into without the approval of Parliament. It is possible—we think it is probable—that the draft of an arrangement has been prepared, and that it will be submitted to Parliament as soon as an opportunity occurs. The company has everything to gain by purchase, and the public have everything to lose. The Post Office has always been helpless when dealing with the monopoly, and there is no reason for believing that in the present instance it will depart from its usual policy of complete capitulation. Our hope that purchase will not take place, but that things will be allowed to take their normal course until the expiration of the lease in 1911, rests not with the Post Office,but with Parliament, which on the eve of a dissolution will display the worst of tactics if it so grossly betrays the public interests as to pay over to the National Telephone Company a price for its undertaking that will make cheap telephones impossible for the next half century. For there is no doubt that this is what purchase with a goodwill consideration means. The watered capital will simply be transferred from the company to the nation, and if both ends are going to be made to meet there will be no reduction in telephone charges. On the other hand, if the municipalities are encouraged to establish the nucleus of a new system, it will only be necessary in 1911 to purchase that portion of the company's plant necessary to link up the whole into one complete undertaking. This would be in accordance with the recommendations of the Select Committee which reported in 1899, and would not be unfair to the company, which has all along conducted its operations in the light of the knowledge that its licence expires in 1911.

Liverpool and the Goods Scheme.

LIVERPOOL'S two proposed Parliamentary Bills had a stormy reception tion a few days ago at the ratepayers' meeting, and we are sorry to see that the scheme by which it was sought to establish an efficient system of transport between the docks and South Lancashire was rejected. The sum and substance of the opposition seems to have been, "Let the Tramways Committee stick to the carriage of passengers and parcels—a work it is doing exceptionally well—and leave goods alone." This might have been an argument if the facilities which the Tramways Committee proposed to provide already existed, but under the circumstances it was merely an excuse for inaction such as we expect to hear from retrogressive persons and bodies; certainly not from the level-headed business men of Liverpool. The Tramways Committee had been in conference with 28 South Lancashire towns, all of which agreed as to the benefit of developing tram routes for the transit of goods. As Sir Charles Petrie pointed out, the proposed scheme for the transit of merchandise would be cheaper than railway or any other mode of transit. The existing city lines would not be used for anything but passenger traffic. The scheme was demanded by the competition with which the port of Liverpool was faced. Further, by means of improved transit more manufacturers would be attracted to Liverpool. It certainly seems to us that other considerations besides that of the welfare of the city of Liverpool actuated this particular ratepayers' meeting. The people who may be expected to benefit by this scheme not being carried out are the directors and shareholders of the railway companies. Similarly, it will not be the general body of Liverpool citizens who will gain from the rejection of the clause in the omnibus Bill providing that "it shall not be lawful to occupy as a dwelling or sleeping-room any room whereof the floor is more than 3ft. 6in. below the surface of the adjacent ground." If this clause had been approved by the ratepayers and by Parliament some 2,000 cellar dwellings in Liverpool would in course of time have been closed. Clearly the supporters of the interests of private enterprise turned up in strong force at this ratepayers' meeting. Where were the general public? Afternoon ratepayers' meetings, under the Borough Funds Acts, would appear to be a mixed blessing.

McClellan's First Year.

IT may cheerfully be admitted by lovers of honest government that Colonel McClellan has exceeded all expectations by the excellence of his administration during his first year as Mayor of New York. Never has Tammany been so virtuous, and some critics have gone so far as to say that had Colonel McClellan had under him subordinates of the type that supported Mr. Seth Low, his record would have easily beaten that of the Fusionists. One of the most ardent reformers in the city recently remarked, "I am sorry that Mayor McClellan is doing so well; he is not by any means doing so well as the public think he is, but he is doing well enough to make it useless to talk about an anti-Tammany or reform movement for a long time to come." This simply bears out what we said 12 months ago, when Colonel McClellan took up the reins of office, that "every fresh reform administration means that the level even of the next reactionary régime will be higher than its predecessor." Colonel McClellan's personal actions have been irreproachable. He has refused to accept the dictation of Tammany in many particulars; he has vigorously backed the best of his heads of departments when they incurred the displeasure of the Wigwam for being too honest, and he has not been too tender of the gas and other monopolies that are still able to levy toll on the citizens. His most remarkable feat of independence was his dismissal of a batch of civil service and park commissioners for violating the law. He did not even give them the option of resigning, but summarily sent them adrift, to the consternation not only of Tammany officials, but of the rank and file of that organisation. The supreme test of the success of any New York administration, however, is the way in which the police are handled. and to this test the McClellan régime does not respond so well as we should like. District-Attorney Jerome, indeed, says he has never known the force so disorganised, but he also says that that is largely due to the fact that it has to administer laws the public do not respect. There can be no doubt of both the Mayor's and Commissioner McAdoo's earnest wish to have an efficient and reliable police department, and perhaps the present year, especially if it sees an improvement in the status of the deputy commissioners, will witness a more radical reform in this vital section of the public service of New York.

Manchester and Insurance.

"HE had investigated the figures as to the profits of insurance companies, and he found that for every sovereign paid into the coffers of the great insurance companies, the public got back 5s. 9d." This is a sentence from the speech of a councillor who moved at the meeting of the Manchester Corporation last week the establishment of a municipal insurance fund; and it is the justification of the action of those local authorities which have already cut themselves adrift from the companies. Even though the Manchester Corporation were to start insuring itself, it would find at the very outset that the premiums exceeded those which most insurance companies have commenced with. The Corporation insures boilers, ships, against street accidents, tramways, and many kinds of buildings and other property. A return prepared recently for the Northumberland County Council showed that during a period of twenty years 377 municipalities had spent £445,000 in insurance premiums, and that they had only received in return a little over £100.000. This ought to be a sufficient argument for Manchester, which might also take into consideration the fact that the insurance companies are reaping benefits from improved fire protection facilities provided by the Corporation. In those benefits the Corporation does not participate as it should. The result of last week's debate was a decision to appoint a special committee to inquire whether insurances should be dispensed with or could be placed on a better basis. The Special Committee, when making its inquiries, must not forget to communicate with Municipal Mutual Insurance, Limited.

"To Fight the Anti's."

THE *Eastern Morning News* the other day had some interesting comments upon the suggestion recently made in our columns that Coporation officials should endeavour to make clear to local newspapers the facts concerning municipal enterprise. The paper points out that at Hull "municipal elections are not conducted on political lines (at least not avowedly so), and so we escape all the evils which admittedly attend that system. Another advantage which is enjoyed in Hull is the fact of the meetings of the various corporation committees being open to the representatives of the Press. This enables the public to follow much more closely, and to appreciate much more highly, the work of the Corporation. It is not the custom either in Hull or anywhere else for corporation officials to write to the Press, especially on controversial subjects, but those in Lowgate are willing, at all times, to assist the Press and the public in acquiring a knowledge of any department of municipal enterprise." Respecting the further suggestion that corporations should set aside rooms for lectures, essays, and discussions on municipal subjects, the *Eastern Morning News* says—

> The spirit of the idea has been anticipated by the North Newington Ward Ratepayers' Association. The president of that body, knowing the willingness of the heads of departments in the Corporation to enlighten the public, has agreed with several of them to give lectures descriptive of the works under their control during the present winter.

We hope that Hull's example will be copied, to the corresponding enlightenment of citizens throughout the country.

POOR LAW OUTLOOK.

[Appointing ex-Members of a Board of Guardians to Official Positions under the Authority. One or Two Matters in Lambeth and in Newcastle. Relieving Destitution in Military Barracks and the Unenviable Position of the War Office. New Scheme for Treating the Sick in their Own Homes. Suggested Introduction of the Elberfeld System of Poor Relief into Edinburgh.

Checking Abuses.

THE principle that members of public bodies should not make use of their positions for their own personal gain and profit is one which cannot be too closely kept in mind. One or two matters have arisen at Newcastle bearing on the recent appointment of two of the members of the Board of Guardians to the registrarships of two important sub-districts, and to the costs of a deputation appointed in respect to the appointment of a new workhouse master and matron, and the local Ratepayers' Association is alarmed. This week the following resolution was unanimously passed, and forwarded to us·—.

> This association, having for one of its objects the checking of the abuse of privilege and power, whether in the case of members of governing bodies or the paid officials of the same, regrets that the Registrar-General of Births and Deaths has deemed it right to confirm the appointments by the Newcastle-upon-Tyne Board of Guardians of James H. Rodgers and James Neylon, who were until October 3rd last members of the same board, to the respective sub districts of Elswick and Benwell, and thereby approved of the principle that members of public bodies should make use of their positions for their own personal gain and profit. This association learns with astonishment that, whereas a deputation of three members of the board of guardians was appointed to visit certain persons and places connected with the posts of master and matron to the workhouse, the deputation consisted of four members. The association protests against the ratepayers' money being spent in this way, and hereby calls the attention of the Government auditor to the matter, with a view of having this additional and unauthorised expense surcharged.

If the allegations be true, the Ratepayers' Association is quite right in taking action. We wish that ratepayers' associations were as keenly interested in every phase of civic activity.

❦ ❦ ❦

"Another Job" from Southwark.

A SOMEWHAT similar position was disclosed at the last meeting of the Southwark Guardians. A joint committee on the unemployed reported having considered applications for the two appointments as investigators *re* the unemployed, and had requested six applicants to attend the Board meeting. Included among the six were a member of the Southwark Borough Council and of the Unemployed Committee, and a member of the Borough Council, who was until a few months ago a member of the Board of Guardians. Both these gentlemen, with the other candidates, were interviewed by the Board. A cry of "Another Job" was raised on a motion to suspend the standing order which prohibits an ex-guardian from being appointed to a position under the Board. We do not suggest that any great harm would be done by an appointment of this kind, but public representatives, like a certain notable historic character, should be above suspicion, and we are glad that the Board (by a small majority) decided not to suspend the standing order. This was not done, however, without a cutting gibe or two being made. One member remarked, "It seems that the Board exists to get jobs for the members."

❦ ❦ ❦

Reform Needed.

REFORM is needed in the Local Government Act of 1894. This measure enacted that a parish situate partly in an urban district and partly in a rural district, or in more than one urban district, should be divided, and the parts of the parish in each such district should constitute separate parishes. Under the present interpretation of the law, the frequent result is that upon a person becoming chargeable to a union, after a short non-qualifying residence therein, such person becomes a permanent burden upon the rates of that union. Some time ago the Cannock and Dudley Unions addressed a letter through the service journals asking for co-operation in taking joint action upon a case to be stated for obtaining the opinion of the High Court as to the position of guardians in reference to settlements acquired in parishes divided or altered subsequent to such settlements being acquired. As a result of this letter, a preliminary meeting of representatives of several unions interested was held at Stafford, on December 20 last, at which it was unanimously resolved that a conference of boards of guardians in England and Wales be convened for the general discussion of the question as to settlements in divided parishes. The conference is accordingly to be held on Tuesday week at Birmingham.

❦ ❦ ❦

Grant-in-Aid.

IT is interesting to recall in this connection that the decision in "Reg. v. Inhabitants of Tipton" (1842), 3 Q.B. 215, established the rule that a settlement in a parish gained by birth therein is a settlement in a parish as an entity, and not in any particular township therein, and if after a birth settlement has been gained a parish be divided by Act of Parliament into two or more separate parishes, so that it cease to exist as an entire parish, the birth settlement gained in the old parish will cease to exist also. The vexatious nature of the law as to irremovability and settlement has arisen through the disposition to preserve the present inequalities of administrations. What is needed is greater co-ordination. A substantial imperial grant-in-aid of guardians' expenditure would considerably help towards this end. At present the rich who are in favoured localities escape heavy poor rates, and the poor are still further impoverished.

❦ ❦ ❦

Lambeth's Medical Relief Scheme.

THE medical relief scheme of the Lambeth Guardians for treating the sick poor in their own homes instead of sending them to the infirmary has advanced one step further. The Local Government Board has written to the Guardians, "desiring information on several points." There are some difficulties to be removed. The medical officers have to be compensated for loss of office, and one of them (Mr. Brookes) now reports that he is not prepared to vacate his office until the Guardians have declared the amount of compensation to be given. At the last meeting it was recommended that—

> In pursuance of Sec. 8 of the Poor Law Officers Superannuation Act, 1896, he be compensated to the extent of one year's salary, viz., £100.

But it was stated that compensation only to that amount has been refused by the medical officer. It was consequently decided at the last meeting that in the event of another refusal to accept it, the Local Government Board should be asked to give the Guardians permission to give Mr. Brookes six months' notice to terminate his appointment. This is a very proper course to take.

❦ ❦ ❦

Who is Responsible?

CAN a man be considered destitute when in military barracks? An interesting situation has arisen in the Christchurch Union. A little more than a year ago one of the relieving officers received a visit from a bombardier, who told him that his brother was suffering from quinsy, and asked him if he could give an order for his removal from the Christchurch Barracks to the workhouse. He declined to give the order, unless the medical officer could see the man, or he could have a certificate from the barracks doctor, as the disease might be infectious. On the following day Major Goulbourn sent for him and told him that the man had scarlet fever, and requested his immediate removal. He declined to give an order, and said he would report to the guardians. Later he learnt that the man had been removed to the Sanitary Hospital.

❦ ❦ ❦

War Office's Dilemma.

IT appears that the man came to the barracks from London with a view of obtaining a special enlistment in the army as a tailor, as he was not up to the standard to be admitted in the ordinary way. He was living with his brother, a non-commissioned officer, when he took the disease. The War Office is in a dilemma as to who should bear the costs. It first stopped part of the brother's pay, but this has been repaid, as it has been advised that it was not legal to do so. It then endeavoured to get the money from the Christchurch Town Council, which is the sanitary authority. Now the unfortunate department has fixed upon the guardians, and at the last meeting of that body a letter was read from the War Office stating that as the board had declined to pay the cost of the removal and maintenance of a man named Marshall, who, while on a visit to the barracks, had contracted scarlet fever, it had issued a writ of subpœna to recover the cost (£21 2s. 6d.), and asked whether the guardians would accept service. The guardians are well advised in standing out, and the War Office will have the difficult task of proving that the man was destitute. It was decided to accept the writ, and in the meanwhile to ascertain how the man got into the barracks, and at whose invitation. An amendment, "That the sanction of the Local Government Board be asked for the payment of the money," was lost by 13 votes to 8.

❦ ❦ ❦

Loving the Workhouse.

HABIT is second nature, and how well the old people may get to love their workhouse is illustrated this week by the scenes in connection with the closing of the old Glasgow Poorhouse. This was not one of the modern workhouses such as the *Times* recently indicted as being too comfortable, but many of the inmates had become greatly attached to the old place through long residence within its walls, and, despite the decided advantages of the new poorhouse at Stobhill, with its rural surroundings, the old men and women cried, we are told by a local writer, "like babies to get back home." But the poorhouse was no longer desirable as a habitation. Originally it was a lunatic asylum, and in the dingy old cellars are to be found neckpieces and rusty chains attached to the walls of the cellars, reminders of man's past inhumanity to man.

❦ ❦ ❦

Elberfeld System and Edinburgh.

IF the capital of Scotland, the "Modern Athens," adopts the Elberfeld system of poor relief, as it gives signs of doing, the movement will be assured in the kingdom. As our readers know, Bradford, in adopting a modification of it a few months ago, was the first in England to do so, and the enthusiastic manner in which it was taken up by 500 of the citizens was pointed out. Our readers do not need to be reminded of the nature of the Elberfeld system, but the question just now is, will Edinburgh adopt it? The authoress of "Britain's Next Campaign" has thrown her whole weight in support of it. This is her burning message, delivered in a letter to the *Scotsman* this week—

> For God's sake do not wait, you Edinburgh men and women, for it rests with yourselves now to become the pioneer city of Britain for the saving of every slum-troubled town north and south. At Elberfeld the scheme was first thought of and set going by a banker; at Leipzig a wholesale draper was the man chiefly instrumental when that place followed suit, thus showing that almost any man of heart and head can make himself in this respect a leader of his city. But what an opportunity for your present Lord Provost that he should be that leader, that his name should go down to posterity as that of the chief magistrate who led Edinburgh citizens in this blessed work of reform. Who would miss such a chance, so rare a distinction, so fine a privilege?

What is really wanted is an Edinburgh sys-

tem on Elberfeld lines. The need in Edinbnrgh for reform is great. Julie Sutter's book, written "at a white heat of pity," as Canon Scott-Holland says in his preface, was the outcome of her personal experience, particularly in that city, where it was written.

❦ ❦ ❦

The Bradford Movement.

MISS SUTTER has something to say of the Bradford effort, of which she confesses to be proud, as "it is in its way the first-born child of my book." The citizen's "Guild of Help" has followed the Elberfeld model pretty closely as regards organisation, but it has "made one fatal mistake":—

> This new Bradford Guild is a private body—it is, as I have vainly striven to show them, a sort of Charity Organisation Society under another name. Elberfeld itself would be that, but for one vital difference—namely, that a true Elberfeld system is a civic enterprise; it is strictly municipal. Let me urge this upon your people from the outset—It is your only chance of success.

Only municipalise, municipalise, she elsewhere exclaims, and you will have an "Edinburgh system" with sure promise of success. The new Edinburgh scheme, being a civic enterprise, will have recourse to the power of calling a rate, but Miss Sutter's suggestion for accomplishing this is ingenious, to say the least. At present there is no law enabling a town council to do this for the purpose under consideration, but, says the writer, "if you cannot do it in any recognised lawful fashion, there is always a round-about way."

❦ ❦

How to Get to Work.

THIS is how the thing is to be started. Let a list be opened at the City Chambers, where every Edinburgh citizen, himself above the poverty line, who is willing to serve his city, can enter his name. Of those who offer let the "city" choose the most capable, and nominate them to the civic helpership for three years; that is to say, a helper shall be at liberty to retire after having served his city for the space of three years, but if willing to continue he could, of course, be reappointed. There is to be a central directorship consisting, it is suggested, of six town conncillors or bailies, and six non-official citizens. The existing Poor Law is to continue, for—

> Here I would first point ont that your new Edinburgh scheme would not at all encroach on the domain of the parish council, for that domain is closely defined; no man in Scotland can come upon the poor-rate proper until he is absolutely penniless and disabled besides. Leave such paupers to the parish council, and let the new Edinburgh system address itself to the great work of keeping the poor from ever sinking to that level. Let its motto be "A stitch in time saves nine."

We heartily agree, for the Poor Law can only *relieve* destitution. Such a system should also prevent indiscriminate charity, which makes cads of the poor and cadgers of the rich. The system makes for a reduction of pauperism.

❦ ❦ ❦

Essentially Economical.

A SHORT time ago another correspondent to the *Scotsman*, writing in favour of an Elberfeld-Edinbnrgh system, brought out very strongly this phase of the system:—

> Everyone who has been permitted to help personally among our poorer neighbours (I speak now of our deserving poor) must have felt the danger of giving, as one to be carefully avoided—"How to do good without doing evil" has been ever one of life's problems. Elberfeld minimises these dangers by getting the giver into kindly, fatherly, or brotherly contact with the receiver—by not waiting till the purse was empty, by securing that no one in the town shall want the necessaries of life—that all shall be cared for as "Christ's little ones." And above all, this charity, which has been "made in Germany," is essentially economical.

But the claims of this German plan for relieving destitution have already appeared at some length in our columns.

❦ ❦ ❦

Are Paupers too Comfortable?

THE interest in Poor Law matters in Scotland just now appears to be healthy. A contributor to the *Glasgow Herald*, discussing allegations as to recipients of relief being made too comfortable, persuasively reasons as follows:—

> The poor are always with us, and one is apt to become callous to suffering that he regards as inevitable. The sight of cattle being led to the shambles evokes scant pity from the average citizen, and the Parisian laughs and talks most gaily when peering through the glass at the latest addition to the slab at the Morgue. It is almost a truism to suggest that the danger to which the agents of the Poor Law are peculiarly exposed lies not in excess of sympathy but in indifference.

The conclusion is a logical one, and, moreover, is proved by experience.

❦ ❦ ❦

"What is 'Lax Out-Relief.'"

A COMMITTEE of the Leicester Board of Guardians has replied to the Local Government Board auditor's criticisms in reference to the three cases of out-relief alluded to in our last impression. The reply must be read in the light of the circumstances of the cases, and thns help to solve the troublesome question of what is "lax" and what "strict" out-relief. In regard to the first case, in the opinion of the committee it would not have had a reformatory effect to send the man to the workhouse, as, although formerly of dissolute habits, the committee believed that latterly he keenly felt his position, and had reformed both as regarded his personal conduct and appearance and as regarded the care of his family. It believed that he did his utmost to get work, and that when trade revived he would readily get back to his old trade. In regard to the second case, when the information was given as to his earnings, the relief was discontinued; but since then the chief wage-earner of the family had gone away, and necessitated the giving of further relief. As to the third case, in no single week did the joint income exceed the average set by the Board, viz., 3s. per head. The committee thonght that 18s., the total income, was not enough for a family of eight, and accordingly granted relief to an extent which they considered perfectly fair. This, again, comes to the question of point of view, and it is impossible for an outsider to judge on the merits of the cases. No answer or explanation, however, is given as to the enormous increase in out-relief in this union.

NERNST ELECTRIC LAMP.

Patentees for United Kingdom,
The A.E.G. ENGLISH MANUFACTURING Co., Ld.,
4, NEW COMPTON STREET,
Charing Cross Road, London, W.C.

The Ideal Lamp for Street Lighting.

DIALITE

THE STANDARD CABLE FOR ALL PURPOSES.

THE ST. HELENS CABLE CO., Ltd.,
WARRINGTON.

ELECTRICITY SUPPLY.

More Particulars about the Hampstead Undertaking. Exeter Surplus, and How it was Obtained. Bedford's Varying Fortunes—a Satisfactory Year's Results. Coventry and its "Venturesome Forward Policy." Enterprise that has Justified itself.

IN our issue of the 30th of December we gave a general *résumé* of the accounts of the metropolitan Borough of Hampstead and of the City of Exeter. The information then presented is now supplemented by the particulars given below of the receipts and allocation of expenditure. It will be seen that while the expenditure at Hampstead has fallen by ·231d. per unit, and the receipts by only ·152d., leaving the gross profit greater by ·079d., the capital charges have actually increased per unit by ·066d., so that the surplus is ·013d. more than before. Hampstead is one of the undertakings deriving appreciable aid from meter rents, and it is an open question whether consumers feel the small sums charged quarterly while in the aggregate they amount to the substantial figure of over £2,500, thus representing nearly half the year's surplus. Few of the London undertakings have brought their average receipts down to the figures which are reported from the provinces, even where the load is purely a lighting one; but this must not, of course, be considered altogether a reflection upon the management of these concerns, as the expenses, especially in the direction of coal and labour, are exceedingly high in the metropolitan area for reasons outside any question of management—

HAMPSTEAD.	Units.	Yielding.	Per unit.
Private consumers took ...	3,008,025	£51,709	= 4·125d.
Public lamps consumed ...	270,134	3,662	= 3·250d.
Interim total	3,278,159	£55,371	= 4·054d.
Meter rentals...	—	2,514	= ·184d.
Sundry receipts	—	166	= ·012d.
Revenue in all	3,278,159	£58,051	= 4·250d.

Allocation of Expenditure.

THE maximum load at Hampstead was 2,666 kilowatts and the plant installed 4,345 kilowatts. 212,307 private eight-candle power or equivalent were connected, and the public lighting consists of 122 arc lamps, each of these being charged at the rate of £28 annually. The private lighting rates are on a sliding scale of 6d. and 2½d., while motors are supplied at 2d. to 1½d., and heating at 2d. per unit, which are about the average for London local authorities. The receipts were taken up and allocated thus:—

	Amount.	Per unit.	
Works cost	£18,286	= 1·339d.	
Rates, taxes, and management, &c.	7,422	= ·543d.	
Total cost	£25,708	= 1·882d.	
Distribution and public lamp maintenance ...	3,423	= ·251d.	
Gross cost	£29,131	= 2·133d.	
Interest charges	10,746	= ·787d.	1·693d.
Sinking fund charges ...	12,378	= ·906d.	
Total actual cost of units sold	£52,255	= 3·826d.	
Surplus for year	5,796	= ·424d.	
Revenue in all	£58,051	= 4·250d.	

Exeter.

THE surplus at Exeter is accounted for by the high average received. The charges for private lighting vary from 6d. to 4d. per unit, for motor 3d., and the same for heating. These result in an all-round figure of over 5¾d., at which rapid extension can hardly be expected. Public lighting pays 2½d. per unit for current only. The number of lamps connected equals 33,261 8-candle power, including 30 motors, the plant installed 670 kilowatts, and maximum load 452 kilowatts. The income was derived from the following sources:—

EXETER.	Units.	Yielding.	Per unit.
Private consumers took ...	366,452	£8,937	= 5·803d.
Public lamps consumed ...	75,427	888	= 2 825d.
Interim total	441,879	£9,825	= 5·295d.
Meter rentals	—	336	= ·183d.
Sundry receipts... ...	—	238	= ·129d.
Revenue in all	441,879	£10,323	= 5 607d.

The amount received was taken up and appropriated thus:—

	Amount.	Per unit.	
Works cost	£4,526	= 2·458d.	
Rates, taxes, and management, &c.	1,595	= ·867d.	
Total cost	£6,121	= 3·325d.	
Public lamp maintenance	131	= ·071d.	
Gross cost	£6,252	= 3·396d.	
Interest charges	1,832	= ·995d.	1·603d.
Sinking fund charges ...	1,120	= ·608d.	
Total actual cost of units sold	£9,204	= 4·999d.	
Surplus for year	1,119	= ·608d.	
Revenue in all	£10,323	= 5·607d.	

Bedford.

THE fortunes of the Corporation of Bedford electricity supply undertaking have varied from year to year, and local opinion has been exercised in an attempt to locate the cause of the deficiencies which have shown themselves at intervals. There is very little wrong with the results for the last financial year, and the works cost is so low for a medium-sized station working on the alternating system that the critics should be silenced. If anyone can be called to account it is the Corporation itself, which obtains 4·84d. from its consumers for the general supply, and while paying 3·861d. for its public lighting takes 167,626 units at 2d. for sewage pumping. No doubt the argument of day-supply will be held to be an unanswerable one, and it may be that this load does not come on the peak. That this price should pay under such conditions is undoubtedly the case, but in past years the pumping output has been a source of loss rather than of profit.

Details.

THE published accounts for the last financial year to the 31st of March, 1904, show that:—

The revenue derived from sales of current, &c., amounted to	£14,658
And the working expenditure to	7,487
Leaving a gross profit of	£7,171
Out of this sum the following requirements were met:—	
Interest on mortgage debt... ...	£2,527
Sinking fund and repayments	3,900
Total of capital charges	6,427
Surplus for year	£744
Add balance from previous account	24
Amount transferred to credit of local rate	£768

Private motive power has not yet attained very large dimensions, as it represented 25,998 units, against 455,057 sold for lighting. Owing to the proportion of load and other circumstances the capital charges are above the average, being 1·849d. per unit. It is therefore to be regretted that the surplus should have been taken to the borough rate, although it has no doubt been held that since the undertaking in years past was largely assisted from this source, it should repay some of its indebtedness when the time came. The receipts were obtained as follows:—

BEDFORD.	Units.	Yielding.	Per unit.
Private consumers took ...	481,055	£9,701	= 4·840d.
Sold to Corporation for pumping	167,626	1,397	= 2·000d.
Public lamps consumed ...	185,783	2,988	= 3·860d.
Interim total	834,464	£14,086	= 4·051d.
Meter rentals	—	461	= ·133d.
Sundry receipts	—	111	= ·032d.
Revenue in all	834,464	£14,658	= 4·216d.
Used on works...	47,831		
Total accounted for ...	882,295	(Maximum load	
Utilised on distribution ...	103,455	was 600 kilowatts.)	
Total units generated ...	985,750		

The amount received was taken up and appropriated thus:—

	Amount.	Per unit.	
Works cost	£5,512	= 1·585d.	
Rates, taxes, and management .	1,692	= ·487d.	
Total cost	£7,204	= 2·072d.	
Public lamp maintenance ...	283	= ·081d.	
Gross cost	£7,487	= 2·153d.	
Interest charges	2,527	= ·727d.	1·849d
Sinking fund charges	3,900	= 1·122d.	
Total actual cost of units sold...	£13,914	= 4·002d.	
Surplus for year	744	= ·214d.	
Revenue in all	£14,658	= 4·216d.	

Coventry.

FOR the year ended March 31st, 1903, the Coventry Corporation electricity undertaking made a loss of £189. Last year the accounts showed a surplus of £776. It will be remembered that a steady reduction in the loss per unit has been effected since 1896, but some two years ago it was decided to extend the mains on a systematic plan—to change over to a two-phase system, and to add plant to meet the demand which it was anticipated would follow large reductions in the rates charged. The policy of extending the business has met with complete success, and the Council may be congratulated upon the profit-yielding state which has been reached as a direct result of what many regarded as a rather risky and venturesome forward policy.

The revenue derived from sales of current, &c., amounted to		£10,844
And the working expenditure to		4,599
Leaving a gross profit of		£6,245
To this was added an amount received from the general district fund		466
Making a total of...		£6,711
Out of this sum the following requirements were met:—		
Interest on mortgage debt	£1,949	
Interest on temporary loans	1,277	
Bank charges	176	
Sinking fund charges	1,850	
Loan capital charges...	90	
Stamp duty	35	
Property tax interest	91	
Interest on deposits	1	
Total of capital and special charges ...		5,469
Gross surplus		£1,242
Add balance from previous year		383
Total balance		£1,625

Increased Revenue.

THE revenue has been increased by £2,768, and the expenditure by £1,035, showing an improvement in gross profit of £1,733. In consequence of the capital expenditure incurred in additions and alterations, the capital charges are now £768 higher than before, but this has left £965 to turn the loss of £189 into a profit of £776. As was believed, the success of the business depended upon an immediate increase in the output and consequent augmentation of revenue, which could only be accomplished by popularising the supply at a lower tariff. The effect of the policy adopted has been to increase the private output by 353,024 units, and the public lighting sales by 437 units, or a total of 353,461 units. The receipts per unit have suffered by ·594d., but the costs have been reduced by ·330d., leaving only ·264d., which is less than half the saving in capital charges of ·546d., so that the loss of ·080d. was turned into a profit of ·202d. per unit. The sales were as follow:—

COVENTRY.	Units.	Yielding.	Per unit.
Private consumers took ..	857,242	£9,582	= 2·685d.
Public lamps consumed...	62,950	800	= 3·050d.
Interim total... ...	920,192	£10,382	= 2·708d.
Meter rentals	—	462	= ·120d.
Revenue in all	920,192	£10,844	= 2·828d.
Units used on works ...	40,800		
Total accounted for ...	960,992		
Utilised on distribution	126,811	(Maximum load was 698 kilowatts.)	
Total units generated..	1,087,803		

The expenditure was covered by the following items:—

	Amount.	Per unit.
Works cost	£3,127 =	·816d.
Rates, taxes, and management	1,450 =	·378d.
Total cost	£4,577 =	1·194d.
Public lamp maintenance ...	149 =	·039d.
Gross cost	£4,726 =	1·233d.
Interest charges	3,402 =	·887d. } 1·393d.
Sinking fund charges	1,940 =	·505d. }
Total actual cost of units sold	£10.068 =	2·626d.
Surplus for year...	776 =	·202d.
Revenue in all	£10,844 =	2·828d.

❦ ❦ ❦

Invested Capital.

THE capital invested in the last two undertakings, both of them alternating systems, was spread over the various items thus:—

	Bedford.	Coventry.
Lands	—	£1,581
Buildings	£9,908	19,140
Machinery	33,429	36,116
Mains and services ...	44,034	38,320
Transformers, &c. ...	5,017	10,243
Meters	4,950	5,000
Electrical instruments ..	1,402	4,343
Public lamps	3,422	1,182
Various	3,447	3,546
Total expended on capital account ...	£105,609	£119,471

MUNICIPAL FINANCE.

A USEFUL BOOK FOR STUDENTS.*

THIS book is described as a "short elementary work on municipal accountancy and finance," and, unlike many elementary works it really gives the reader an insight into the subject with which it deals. It is by no means perfect, and it is still less exhaustive, neither of which qualifications could be fulfilled in a volume of 63 pages. But it will impel the intelligent student of it to a more extensive inquiry into the principles that underlie the exceedingly difficult subject of municipal finance, which necessarily embraces every branch of local government. The author, who veils his identity under the guise of "A Municipal Accountant," has evidently a thorough knowledge of his business, or he could not have given us such an admirable condensation of it. We hope that it will not be long before he redeems the promise he gives in his preface "to deal more thoroughly with the subjects herein treated."

The book, we believe, appeared in serial form in the columns of the *Accountant's Journal*, and one of the chapters was reproduced in our own *Journal* in the latter part of last year, headed "The Pros and Cons. of Municipal Trading." One of the things we most admire in the volume is the ingenious way the author has avoided expressions of opinion on some of those subjects which are being heatedly argued by municipal controversialists. We could not trust ourselves, for instance, to write an article on the subject of depreciation without letting our readers know that we hold some very decided views concerning it. Our author, however, very ably demonstrates every point of view except his own, which must be a definite one, coming from "a municipal accountant."

On the subject of municipal audit, again, we are given every possible opinion, and the reader is invited to weigh them all in the balance and decide for himself which are most wanting as effective remedies for this difficult problem. We have only to add that the book contains a very excellent bird's-eye view of the constitution of local government. The author is evidently not a lawyer, or he could not have made this chapter so clear. More of this non-legal aspect of municipal administration is wanted, and we hope we shall get it.

* "Municipal Finance for Students." By a Municipal Accountant. (London: Gee and Co., Printers and Publishers, 34, Moorgate Street, E.C. 2s. 6d. nett.)

CORRESPONDENCE.

SIR ROBERT GIFFEN'S ARTICLE.

To the Editor.

SIR,—I read the article in your journal, commenting on Sir Robert Giffen's article in the "Contemporary Review." You say: "We do not think Sir Robert Giffen should generalise in this fashion unless he advances some specific proof in support of his statement": "We have to do with a real disease of local government; with an expenditure that is partly extravagant and unnecessary, because authorities are frequently bad managers; they spend money on what is really not wanted, they spend more than they ought on what happens to be necessary."

May I, as a student of local government management, be allowed to say how heartily I agree with Sir Robert Giffen's statement on local government? I charge the local authorities with putting a heavy burden upon the backs of the poorer shopkeepers and working men by the extravagant, unnecessary waste of the ratepayers' money. You state Sir Robert Giffen does not give specific proof. May I be allowed to give some proof of wastage of the ratepayers' money in the borough of Lewisham?

My rates are more by £1 6s. 4d. per year than they were six years ago. I live in a small five-roomed house, with stable, and, of course, there are a great number of small houses in the borough; small shopkeepers' rates have risen from £12 per year to £16 4s. Is not that amount a heavy burden on the poor—*the thrifty, hard-working poor*?

I also know of cases of the poor at Deptford (I call a man poor when he earns 30s. a week and has to pay 11s. rent out of it and keep wife and family) having a burden of 26s. to 52s. per year. It comes about in this way. The landlord calls and says he must raise the rent because the rates are higher, so the poorer ratepayers, through the extravagant waste of money, are burdened more than they can pay—proof of wastage of rates in the borough of Lewisham. The dust destructor cost £2,000, but it is of no use, and the dust goes by rail; £1,000 was spent in gas jets and fireworks and fancy dress balls Coronation week; £200 was spent in law costs over publican's sign-post; the latest item is English turkeys for officials' Christmas' dinner. There are other items, but space will not permit.—Yours, &c.,

J. Robinson.

167, Glenfarg Road, Catford.
January 9th, 1905.

[Our correspondent follows exactly the same line of argument as that adopted by Sir Robert Giffen in the article we criticised. *Because* rates have increased, he assumes that waste and extravagance have necessarily taken place. It does not follow at all. The town with the highest rates in the country is not necessarily the worst managed, nor is the town with the lowest rates necessarily the best managed. We should like to hear a little more about those turkeys for the officials' Christmas dinner. What officials? — Ed. *M. J.*]

MUNICIPAL ENGINEERS AND SURVEYORS IN THE UNITED STATES AND CANADA.

To the Editor.

SIR,—Referring to "S. A. W.'s" query on page 7 of the *Municipal Journal* of the 6th inst., I would suggest that he should get a copy of the "Professional Handbook," price 3d, issued by the Emigrants' Office, 31, Broadway, Westminster, S.W. It is also sold by Eyre and Spottiswoode; Olever and Boyd, Edinburgh; and E. Ponsonby, 116, Grafton Street, Dublin; Messrs. W. Dawson and Sons, Cannon House, Breams Buildings, London, E.C.; and the International News Company, of 5, Breams Buildings, Chancery Lane, London, E.C., issues a catalogue of American and Canadian newspapers.—Yours truly,

T. M. S.

27, Queen's Terrace, Newcastle-on-Tyne.
January 7, 1905.

THE "DAILY MAIL" AND WEST HAM.

To the Editor.

SIR,—I notice in your leader on "The *Daily Mail* and West Ham" in your issue for to-day that you state that "the profits from the electric lighting undertaking are this year reducing the total rate by 1¾d. in the £." For your information, I beg to inform you that these profits are not electric lighting, but *tramway* profits.—Yours, &c.,

H. E. Blain
(Tramways Manager).

West Ham Lane, West Ham, E.
6th January, 1905.

[We are pleased that the credit of reducing West Ham's rates shall go to the proper quarter. For the purposes of the argument we were using, however, it does not very much matter whether the profits are tramway profits or electricity profits, as both come under the category of "municipal trading."—Ed. *M. J.*]

MUNICIPAL MUSIC.

FREE ORCHESTRAL CONCERTS WANTED BY MUSICIANS.

THE Incorporated Society of Musicians has been discussing at Manchester the question of municipal music.

Mr. S. Midgley, of Bradford, read a paper on "Municipalities and music, with special reference to a municipal orchestra." Considering what a municipality might do to develop music in a large city, he said a city councillor might point to the musical aspect of Manchester as an argument for leaving music to private enterprise. He did not suppose that in any part of the Empire there was a better equipped city from the musical point of view than Manchester, but the attendance at the orchestral concerts showed that even in Manchester two per cent. of the population was not an unfair estimate of the number of those who really loved music. With a view of encouraging the love of music, he suggested that the municipalities of the great cities should promote free orchestral concerts in all the wards of the city. Music was a fine antidote to much that disfigured society of all classes, and its more general development would be an uplifting and purifying influence in all directions. It would be good for the general body of orchestral players, thousands of whom were at present obliged to follow other avocations to help to keep themselves in decency and comfort, and it would be good, too, for the young composers, many of whom had no chance whatever of hearing their works played with the help of an efficient orchestra under present conditions.

The discussion showed some difference of opinion as to the advantages of municipal concerts from the point of view of the profession. Dr. Weekes complained that municipal concerts in Plymouth had lessened seriously the attendance at a series of concerts which he had himself conducted for a long time, and the proceeds of which were handed over to charitable purposes. The result was that he had had to cut down the orchestral band and the performances could not be given on so large a scale. If municipal concerts attracted poor people he would do all he could to promote their success, but his experience was that they were attended by the middle class, who could well afford to pay for their music themselves.

Mr. J. G. Halford, of Birmingham, was favourably disposed towards municipal concerts, but thought that a small charge should be made.

Dr. Coward, of Sheffield, whilst strongly opposed to a municipal orchestra, suggested that the Town Council might subsidise existing societies, on condition that a certain number of free seats were allotted at their concerts to people who could not afford to pay for admission.

Dr. Vincent, of London, thought the formation of municipal orchestras would help existing societies by bringing into the town trained orchestral members who would be able to give them assistance when required.

TRAMWAY TOPICS.

Bradford is Keenly Alive to the Importance of Tramways as a Civic Enterprise, and Many Lessons may be Learned of its Last Official Year's Doings. What the Belfast Ratepayers have Lost through Lack of Earlier Appreciation of Tramway Enterprise. The B.E.T. and Wednesbury.

THE year's working of the Bradford municipal tramways to 31st March last resulted in the healthy nett balance of £13,399 15s. 6d. But this is far from the most important item affecting the welfare, convenience, and pockets of the local ratepayers. The route length of the tramways worked by the Corporation has increased from 45 miles to 53—that is to say, in 53 miles of streets electric tramways are constructed, and a service is in daily operation. These extensions, in pursuance of previous policy, have been carried out without the aid of contractors, and, in the language of the Tramways Committee, "this work has again been executed by the department with very satisfactory results."

❦ ❦ ❦

Some Well-Tramwayed Cities.

IN view of these recent extensions, it is interesting to show what is the position of Bradford compared with some of the principal English cities. This is given in the Tramways Committee's annual report and accounts, dated August 31, 1904, just to hand, which is as follows:—

Town or City.	Miles.	City population.	Population per mile of tramway.		
Manchester..	79	No	com	parable	data.
Glasgow ...	70	781,000	(1)	11,157	(4)
Liverpool ...	57	710,337	(2(	12,062	(3)
Bradford ...	53½	279,767	(5)	5,180	(7)
Leeds ...	42½	443,599	(3)	10,437	(5)
Sheffield ...	32½	426,686	(4)	10,128	(2)
Newcastle ...	28	215,328	(7)	7,700	(6)
Nottingham	16	239,753	(6)	14,900	(1)

It will be noted that in point of ronte mileage Bradford is fourth, in popnlation fifth, in population per route mile of tramway seventh. The tramways serve a population of 324,000 (approximate), which includes 40,000 outside the city. It will, therefore, be seen, when comparing the population served by the passengers carried, that the tramways have carried the total popnlation 134 times during the twelve months. The car mileage has increased by 502,884 miles, and the receipts by £29,353. On April 30 last the department took over as a running concern the Shipley Tramways, by arrangement with the Shipley Urban District Council and the Mid-Yorkshire Tramways Company. Since that date these tramways have been in daily operation under the control of the committee with satisfactory results.

❦ ❦ ❦

Taking Care of the Cars.

A WORD or two as to the treatment of the 239 cars. Just 100 cars have been fitted with covered tops, and from the report these seem to have been appreciated by the travelling public. It is always to be remembered that there is a set-off against the cost of these car-tops by the increase of revenue they are likely to bring; and in Bradford, indeed, the expenditure is expected to be more than counterbalanced in this way. As in several other towns recently, the Corporation has decided to adopt steel tyres, after considerable experience with chilled iron wheels, and in this manner it is hoped to effect considerable saving in car maintenance and repairs. The committee rightly believes in having the cars in first-class condition, and during the financial year no less a sum than £28,526, or 1·48 per car mile, was spent in repairs, renewals, cleaning and inspection of rolling stock. The utility of life-guards is shown by the fact that in 63 cases where persons were knocked down, 56 were picked up safely by the life-guard, as against seven fatal cases.

❦ ❦ ❦

The Year in Figures.

TO accurately gauge the year's working a few figures must be given. The number of car miles covered was 4,546,942; estimated number of passengers carried, 39,639,414; average traffic revenue per car mile, 10·198d.; average total revenue per car mile, 10·421d.; traffic revenue, £193,206; total revenue, £197,437; working expenses, £137,932. The disposal of the nett balance was as follows:—Proportion of company's profits (final instalments), £10,482; transfer to reserve or renewals fund, £2,916 19s. 10d. The general manager of this successful undertaking is Mr. C. J. Spencer, A.M.I.E.E.

❦ ❦ ❦

The Belfast Purchase.

WE recorded last week the transfer of the undertaking of the Belfast Street Tramways to the Corporation, and gave some account of the relations between the company and the municipality to show that expropriation was the only possible solution of what had become a serious problem. What the citizens have lost by the neglect of the Council to enforce the recommendations of its own committee of inquiry in 1871 it is not now, of course, possible to estimate, but it is worth while showing what the loss mnst have approximately been during the last few years, if only to rub well home the lesson Belfast teaches to all supine cities which allow their street transportation services to become the prey of private monopolists. The following table shows the profit made by the Belfast Street Tramways Company during the past seven years, the dividend distributed on the ordinary share capital, and the rent, &c., paid to the Corporation:—

Year ended June 30.	Profit.	Rent, &c., paid to Corporation.		Dividend on Ordinary Shares.		
		Amount.	Proportion of profit.	Amount.	Ratio to capital.	Proportion of profit.
	£	£	%	£	%	%
1898	41,303	3,867	9½	18,450	7½	44¼
1899	42,736	3,867	9	18,450	7½	43¼
1900	41,428	3,850	9¼	18,450	7½	44½
1901	34,510	7,523	21¾	19,950	7½	57¾
1902	28,134	8,429	30	15,950	6	56¾
1903	31,034	8,404	27	14,630	5½	47¼
1904	32,278	8,962	27¾	14,630	5½	45½

The above table indicates pretty plainly how the lion's share of the profits went to the company. even the most subordinate class of proprietors getting more than the city even in recent years, when the leasing terms had been revised.

❦ ❦ ❦

What Might Have Been.

THE next table shows what profit wonld approximately have gone to the municipality had it owned the lines, and the poundage by which the rates could have been reduced:—

Year ended June 30.	Profit.	Estimated capital charges, &c.	Surplus available for reduction of rates.	
			Amount.	Equivalent rate.
£	£	£	£	d.
1898	41,303	25,000	16,303	3¾
1899	42,736	25,000	17,736	3¾
1900	41,428	25,000	16,428	3½
1901	34,510	25,000	9,510	2
1902	28,134	25,000	3,134	¾
1903	31,034	25,000	6,034	1
1904	32,278	25,000	7,278	1½

This estimate is worked out of the existing figures. Our knowledge of municipal working enables us to say that infinitely better resnlts wonld have been shown had the lines been operated by the Corporation from the start. To begin with, municipalities can work about 10 per cent. cheaper than companies, in spite of paying better wages and charging smaller fares, and it is pretty certain Belfast would never have allowed the public transportation service to deteriorate. The system would long ago have been electrified, and Belfast, whose population has increased 15 per cent. during the last seven years, would have found its tramways a fine revenue-raising concern. It will, undoubtedly, still find them profitable enough, but a much greater proportion of the earnings will have to go in meeting capital charges arising out of the heavy price that has had to be paid to get rid of the company.

❦ ❦ ❦

Free Passes Satire.

AS a satire on the decision of the Belfast Corporation to grant free passes to the members on the municipal tramways, a novel notice of motion has been given for the next meeting of the United Trades and Labour Council. The motion declares that the Corporation is altogether too modest, and that the resolution should be extended by granting free passes to all the municipal baths, and that a double grave plot should be allotted in Dundonald Cemetery, with a willow sapling from the local park placed at the head of it.

❦ ❦ ❦

Board of Trade and North London Conduit.

THE Board of Trade, after full consideration of all sides of the question which has long been in dispute, has approved the use of a slot not exceeding one inch in width, in connection with the underground conduit system for the electrification of the London County Council tramways in North London.

❦ ❦ ❦

South Lancashire Company and Leigh.

THE South Lancashire Tramway Company has notified the Leigh Corporation of its intention to promote a Bill in the next session of Parliament for the purpose of extending the time of the construction of some of its proposed tramways, and enable it to abandon and relinquish the construction of certain tramways authorised by its Act of 1900, within the borough of Leigh. Several lengths are now working.

Kaiser and Electric Trams.

THE question whether Potsdam is to have electric trams in place of its present antiquated service of horse trams has become one of almost national importance. The Kaiser, who has the last word in every matter concerning Potsdam, objects to electric overhead wires on the line connecting the town with the railway station which passes the town palace in which Frederick the Great was born. Not only would the architectural effect be spoilt, but the remains of the old linden tree in the middle of the road, round which people used to wait with petitions for the Great Frederick, would have to be removed. Consequently the Kaiser suggested a second bridge, well out of sight of the palace, and it is evident that Potsdam will have to build it. The Kaiser has promised that the State shall bear half the cost of the new bridge and approaches, but Potsdam's share will still be rather more than £30,000. Potsdam, as a community, is exceedingly poor, and a discussion is now going on whether the inhabitants ought to be mulcted in such a large sum merely to preserve a sentimental interest in a tree trunk incased in lime and held up by iron supports.

❦ ❦ ❦

B.E.T. Company and Wednesbury.

REPORTS have recently gained currency that the difficulties which some time ago led to the stoppage of the tramway service between Wednesbury and Darlaston and Wednesbury and Dudley had been in a great measnre overcome, and that there was a prospect of all outstanding questions between

the tramway company, now incorporated in the Birmingham and Midland Joint Committee, but still the B.E.T. Co., and any of the local authorities concerned, being adjusted without further loss of time. Inquiries, however, fail to show that so favourable a view of the situation is justified, and it is officially stated that the position is, to all intents and purposes, unchanged. The points at issue between the company and Wednesbury Town Council have made no further progress towards settlement.

❦ ❦ ❦

Questions at Issue.

IT is understood that the trouble all arises over a question as to whether the Corporation should purchase not only the tramways, but also the tramway depot. The latter is situated in the borough of Wednesbury, but the Corporation contends that it is only concerned in securing the control of the highways, and strong objection has been raised to an expenditure of some thousands of pounds for acquiring premises which, it is stated, might under certain conditions at some future time be, as far as the Corporation is concerned, of no possible utility. The tramway company, on the other hand, absolutely refuses to agree to the suggestion that the Corporation should lease it the tramways, but require it to buy the depot. The two things, it is pointed out, are part and parcel of the one undertaking, the depot being essential to the working of the tramways, and it is urged that it would be a most unreasonable position to have a division of ownership. Until this question has been satisfactorily adjusted there seems to be little prospect of the tramway line between Wednesbury and Darlaston being re-opened. Its closure has occasioned much inconvenience, it being the only means of communication between the two towns. An authoritative assurance is given that plans have been drawn up for relaying and re-equipping not only this but other lines in the Wednesbury district, whenever a settlement of the existing dispute is arrived at. For some time past negotiations between the two parties have been practically at a standstill, but it is understood that there is now a likelihood of their resumption with a better chance of the difficulty being solved.

❦ ❦ ❦

Tipton to Dudley.

AS regards the tramway through Tipton to Dudley, the B.E.T. Co. attributes its continued closure to the mining subsidences at Gospel Oak. No sane person, it is said, would expect the line to be re-equipped for traffic under existing circumstances; as at one point the road has recently had to be raised no less than 8ft., and the subsidences continue to such an extent that the company has been compelled to largely augment its staff in order to preserve the permanent way. The re-opening of this particular line in the immediate future therefore appears extremely improbable. There may be reason in these excuses, and there may not be. But it is a noticeable fact that a local authority which has anything to do with the Trust at some time or other comes in conflict with it. The wisest and best plan for municipal bodies to pursue is to have nothing to do with the B.E.T. Co.

❦ ❦ ❦

Warrington and Knutsford Scheme.

THE Runcorn Rural District Council has decided to oppose the Warrington to Knutsford light railway scheme unless the promoters make a deviation from their plan at Latchford Without, which, the Council contends, will make that railway of greater convenience to the public without lengthening the road.

STRETFORD'S ELECTRICITY.

A GROWING UNDERTAKING.

SO successful has the Stretford District Council been with its electricity undertaking that it is now taking advantage of a local Act of last year to extend the tramway system; to supply electric current outside the boundary of the township; and to undertake certain public duties inside the area of Trafford Park. The Council has extended the electrical generating station at Longford Bridge to double its capacity, and contemplates yet further additions. When opened little more than a year ago the electrical plant to carry the full estimated load was equal to 400 kilowatts on four dynamos of 100 kilowatts each. It soon became apparent that the plant was insufficient. The station was extended and a 400-kilowatt dynamo is now in course of erection. The Electricity Committee anticipates that the increased plant will be completed for use by the 1st of February.

Such a large addition has been necessitated by the fact that the station when opened had no stand-by plant, as the full load was required to meet the demand for lighting and traction purposes. With the increasing demand for electric current for private lighting purposes by the residents, the new provisions obtained by the Council, and the opening within a brief period of the tramway extensions at Old Trafford, the authority is justified in a capital outlay almost equal to the original cost. As negotiations are proceeding which may result in the Council undertaking the electric lighting of the streets in Trafford Park, a big increase in demand for current is anticipated. Prices charged are being revised, and a reduction is proposed of the flat rate from 6d. to 4½d. per unit. However, the committee desires to know the possible effect on the demand such a drop in price would create before committing itself.

MUNICIPAL ELECTRIC TRAMWAY RETURNS.

Undertaking.	Date of Opening.	Length of Route.	Total Length Track.	Year ends.	Last Weekly Return.		Corresponding Week 1903.		Total Receipts for Year.	
		Miles	Miles		Receipts.	Passengers.	Receipts.	Passengers.	1903.	1904.
Aberdeen	Dec. '99	2·50	5	May 31	1,533	—	1,239	—	45,650	39,857
Ayr	Sept. '01	6	8	—	246	64,789	189	52,719	11,059	10,537
Birkenhead	Feb, '01	13·52	23·53	March 31	1,084	227,753	1,048	219,639	42,585	43,157
Blackburn	Mch. '99	13½	13½	March 25	707	133,724	709	128,537	33,416	33,120
Blackpool	Oct. '84	3	6	March 31	336	—	287	—	43,849	37,854
Bolton	Nov. '99	25	35	March 31	2,151	457,667	1,666	361,708	75,555	75,117
Bournemouth	July '02	11·8	18·2	March 31	973	175,650	857	155,533	55,445	17,637
Bradford	July '98	53¾	95½	March 31	3,729	—	3,366	—	169,463	142,392
Brighton	Nov. '01	6·5	11·75	—	797	180 281	743	178,369	—	—
Burnley	Mch. '02	10·60	10·60	March 31	1,090	183,847	816	139,518	—	—
Cardiff	Dec. '01	16	30	March 31	—	—	—	—	—	—
Darwen	Oct. '00	4·5	4·25	Dec. 31	—	—	—	—	—	—
Dover	Sept. '97	3·5	4·5	March 31	180	46,343	171	43,852	9,229	9,349
Dundee	July '00	12·56	23·1	March 31	808	—	768	—	24,512	—
East Ham	June '01	6·6	10·75	March 31	628	233,023	584	225,403	28,920	27,365
Glasgow	Oct. '98; Extens., April '01	72½	143	May 31	17,069	4,285,429	14,619	3,772,993	457,765	435,307
Halifax	—	—			2,498	599,520	2,377	570,480	68,008	61,151
Huddersfield	Feb. '01	—	32	March 31	—	—	—	—	—	—
Hull	July '99	12·25	25	March 31	2,180	523,431	2,037	438,957	88,496	77,732
Ilford	Mar., '03	6·5	10·5	—	358	96,550	321	—	18,410	17,518
Ilkeston	May, '03	3·5	4	—	91	23,555	105	27,511	—	—
Leeds	Aug. '97	37	71	March 25	5,293	—	4,794	—	236,834	223,383
Liverpool	Nov. '98, June '99	66	114	Dec. 31	10,377	2,221,956	9,695	2,075,193	540,916	524,509
L.C.C.*	1897, Jan. '99	—	47¼	March 31	12,514	—	8,859	—	501,232	391,589
Manchester	June '01	72	131·50	March 31	11,995	2,431,812	10,749	2,191,231	491,433	470,569
Nelson	Mch. '02	2·75	3·5	—	105	32,507	93	27,033	3,522	4,836
Newcastle	Dec. '01	17	36	—	3,743	826,313	3,472	758,454	—	—
Oldham	Dec. '00	18	28	—	1,353	268,559	1,021	223,173	50,847	48,281
Portsmouth	Sept. '01	15	28	—	1,515	328,172	1,372	302,054	78,952	72,719
Reading	July '03	7½	13⅓	—	511	119,302	491	113,938	—	—
Rotherham	Jan. '03	7⅓	—	March 25	386	87,899	391	86,758	17,324	14,777
Salford	Oct. '01	32½	59½	March 31	3,997	751,289	3,569	—	165,271	157,135
Sheffield	Sept. '99	32½	59½	March 25	4,567	1,218,711	4,057	1,071,706	192,193	187,503
Southampton	Sept. '98	9⅜	16⅜	March 31	859	161,132	845	164,252	39,516	41,818
Southend-on-Sea	July '01	6·85	—	March 31	—	—	—	—	—	—
Sunderland	July '00	12·27	23	—	1,116	—	1,072	—	47,804	46,712
Wallasey	Mch. '02	9	10·5	March 31	690	131,612	584	111,497	30,445	28,399
Walsall	Jan. '04	12⅓	13½	Dec. 31	438	80,650	505	94,750	—	—
West Ham	Feb. '04	9·78	12·98	—	1,076	310,103	—	—	43,115	—
Wolverhampton	April '02	11·258	16·848	March 31	732	158,759	437	84,532	—	—

* Also includes the horse lines.

DICK, KERR & Co., LIMITED,

ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Contractors for Municipal Lighting and Tramway Schemes.

Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

FIRE EXTINCTION WHILE YOU WAIT.

THE "PERFECTION" CHEMICAL EXTINGUISHER.

HOWEVER good an invention may be, it has to be widely known to be appreciated. This is especially true of chemical fire extinguishers. The tendency is to rush to water as the only way of putting out a fire. But obviously water is not always to hand. In the country there may be miles of roads—perhaps muddy and slippery roads—to be traversed before a steam-engine is available. But even in cases where it is quickly available it is often questionable whether it does not cause as much damage as the fire it is used to check. Local authorities, who are responsible for so many million pounds worth of property, cannot afford to get behind the times in regard to fire extinction. A number of them are now ordering the "Perfection Chemical Fire Extinguisher." Amongst other local bodies that have seen the advantages of the new appliance and had it supplied, are:—Alverstocke Parish of Gosport, the Brighton Corporation, Eastbourne Corporation, Southampton Corporation, City of London Asylum Authority, Croydon Infirmary and Education Committee, Whitechapel Infirmary Authority, and Whitechapel Poor Law Guardians.

These extinguishers seems to be simple, effective, durable, economic and safe, and what more could be said? except that they are always ready, and cannot get out of order. The machines are made from heavy solid copper throughout, tested and guaranteed to stand a pressure of 300lb. per square inch. Highly polished, they are handsome in appearance, and being the result of many years of practical experience, embody the best features of all modern methods for extingnishing fire. It is said that they afford the cheapest method of protection from fire yet devised, and, as there are no cocks, gauges, couplings, or valves about them, it is absolutely impossible for the machine to get out of order. They can be operated instantly by any person who has never seen the machine before.

In case of fire, it appears that all that it is necessary to do is to turn the machine upside down, when you will immediately get a 50ft. stream of fire-destroying chemical fluid.

Particulars of this cheapest method of protection from fire—6d. is the cost of refilling a two-guinea extinguisher — may be obtained from Messrs. Frank Walker and Co., 27-28, King William Street, London, E.C.

PRIVATE BILLS IN PARLIAMENT.

THIS week the time expires for depositing in the Private Bill Office memorials alleging non-compliance with the Standing Orders of Parliament in the case of the first hundred Bills on the list of those to be promoted next session.

Five memorials were lodged. One was against the Metropolitan Electric Supply Company (various powers) Bill by the Willesden Urban District Council. The others were against the Mullingar, Kells, and Drogheda Railway Bill, by the Great Northern Company of Ireland; against the Wellingborough and District Tramroads and Electricity Supply Bill, by the Northamptonshire County Council; against the Hastings Tramways Bill, by the Bexhill Corporation; and against the Metropolitan Railway Bill, by the Willesden Urban District Council.

Among the Bills which will be unopposed at this preliminary stage are the following: Stepney Borough Council (Superannuation); Administrative County of London and District Electric Power Company; South Metropolitan Gas; Charing Cross and Strand Electric Supply Corporation (Power Supply); London County Council (Tramways); London Building Acts (Amendment); Metropolitan Pneumatic Dispatch Company; London United Tramways; East London and Lower Thames Electric Power; Thames Conservancy; London Port and Docks Commission; and the Central London Railway (New Lines).

MUNICIPAL ADVERTISING.

AT the last meeting of the Lowestoft Town Council a deputation from the Town Advertising Committee waited on the Council and asked it to make a grant to the Mayor in order that he might devote it to the purpose of advertising Lowestoft, a work which has been hitherto carried out by subscriptions from a comparatively few townsfolk, but which it was felt should be borne by the whole community. The question was referred to the General Purposes Committee. That committee met on Wednesday evening, and debated it at considerable length and with much warmth. In the end there were six members for the making of the grant and six against, so that the matter will come up again before the Council for decision. It is to be hoped the Council will see its way clear to make the grant, for other towns are advertising, and Lowestoft must not be behind.

LIGHTNING CONDUCTORS.
J. LEWIS,
5 and 6 Great Winchester Street, London, E.C.
TELEPHONE No. 3053 CENTRAL.

EATON & KNAPP,
BOILER SETTERS & FURNACE BUILDERS,
Repairs in Boiler Brickwork & Dust Destructors of all kinds.
ESTIMATES FREE.
23, CLACTON ROAD, WALTHAMSTOW.

YŌST
THE TYPEWRITER FOR BEAUTIFUL WORK.

NO RIBBON.
NO COMPLICATIONS.
NO SHIFT-KEY.

85 CHARACTERS.
LIGHT TOUCH.
NOISELESS.

ASK FOR "MUNICIPAL" BOOKLET, POST FREE.
THE YOST TYPEWRITER CO., LTD.,
50, HOLBORN VIADUCT, LONDON, E.C.

Important to Municipal Authorities.
THE
SMETHURST FURNACE
AND
ORE TREATMENT
Specially adapted for CARBONATING and PURIFYING FOUL EFFLUENT LIQUORS from Works and SEWAGE Evaporation.
EVAPORATING & MELTING PLANTS.
The SMETHURST FURNACE and ORE TREATMENT SYNDICATE, Ltd.,
3, GREAT WINCHESTER STREET,
LONDON, E.C.

Appointments Vacant.

Latest date for applications in parentheses.

Assistant Master of Workhouse. £60, &c. R. Greenwood, Acting Clerk to the Lambeth Guardians, Brook Street. Kennington Road, S.E. (January 24.) See advt. in this issue.

Assistant at Gas-meter Testing Station. £80. Clerk of Middlesex County Council, Guildhall, Westminster, S.W. (January 14.)

Clerk (Assistant). £80. R. Crabtree, Council Offices, Hebden Bridge. (January 16.)

Clerkships—Fourth Class. Examinations on January 16, 17, and 30th. Applications by 11th and 16th January respectively. Clerk of London County Council, Spring Gardens, S.W. See advt. in No. 619.

Collector of Poor Rate, &c. W. B. Gofton, Council Offices, Filey. (January 20.)

Cook—Male. F. E. Hilleary, Clerk to Guardians, Union Workhouse, Leytonstone. (January 18.)

Cook (Male). £30. S. J. Ennion, Deva Chambers, Newmarket. (January 23.)

Drill Mistress. £35. J. R. Browne, Guardians' Offices, Raine Street, Old Gravel Lane, E. (January 17.)

Electricity Department (Assistant in Charge of Meter Department). £2 10s. per week. G. G. Bell, 57, Fulham Palace Road, W. (January 18.)

Electrical Engineer (Second Assistant). £250. F. Stevens, Town Clerk, Town Hall, Bradford. (January 19.) See advt. in No. 623.

Female Assistant. £20. W. Turnock, Clerk to Guardians, Forest House, Chester. (January 20.)

General Assistant to Borough Surveyor. £100. J. S. Pickering, Municipal Offices, Cheltenham. (January 21.)

Headmaster. £500. J. F. Moss, Education Office, Sheffield. (January 18.)

Inspector of Nuisances. £100. R. M. Barr, Clerk to District Council, Town Hall, Ventnor. (Jan. 31.)

Junior Clerk. £50. A. P. Johnson, Town Clerk, Town Hall, Haverstock Hill, N.W. (January 17.)

Junior Clerk. 12s. 6d. per week. H. M. Robinson, Town Clerk, Town Hall, Old Street, E.C. (January 18.)

Junior Clerk. £41. W. F. Dewey, Town Clerk, Town Hall, Upper Street, Islington, N. (January 16.)

Junior Clerk. £1 per week. Town Clerk, Guildhall, Bath. (January 17.) See advt. in this issue.

Junior Clerk in Borough Treasurer's Department. £60. Robert Voss, Town Clerk, Town Hall, Bethnal Green, N.E. (January 19.) See advt. in this issue.

Librarian—Chief. £200. Vivian Orchard, Municipal Offices, 20, Tanners Hill, Deptford. (January 17.) See advt. in No. 622.

Medical Officer of Health. £60. F. S. Rix, Clerk to District Council, Beccles. (February 4.)

Nurse. £30. Chas. Taylor, Clerk to Guardians, Minster, near Ramsgate. (January 26.)

Nurse. £26. W. R. Graham, 31, High Street, Andover. (January 18.)

Nurse. £30. E. B. Claxton, Clerk to Guardians, Ely. (January 17.)

Nurse (Assistant). £24. J. A. Shepard, Clerk to Guardians, Town Hall, Tredegar. (January 23.)

Nurse (Charge). £30. F. W. Mee, Clerk to Guardians, Union Office, Hunslet, Leeds. (January 18.)

Nurses—Children's. £25. F. E. Hilleary, Clerk to Guardians, Union Workhouse, Leytonstone. (January 18.)

Nurse-Matron. £50. E. G. Wilson, Clerk to U.D.C., Church Street, Epsom. (January 17.)

Nurse (Superintendent). £40. W. Turnock, Clerk to Guardians, Forest House, Chester. (January 20.)

Relieving Officer. £90. Fairfax Davies, Clerk to Guardians, North Walsham. (January 19.)

Relieving Officer, &c. £134. H. Ward, Clerk to Guardians, Church Street, West Bromwich. (January 20.)

Relieving Officer (General). £150. R. Greenwood, Guardians' Offices, Brook Street. Kennington, S.E. (January 21.) See advt. in No. 623.

Relieving Officers (Two). £100 and £90 respectively. B. Challenor, Clerk to Guardians, Abingdon-on-Thames. (February 4.)

Storekeeper. £50. S. Haire, Clerk of District Asylum, Londonderry. (January 20.)

Surveyor (Assistant). £120. A. T. Pattinson, Town Clerk, Macclesfield. (January 21.)

Surveyor and Inspector of Nuisances. £100. C. Blakeway, Clerk to District Council, Nuneaton. (January 23.)

Town Clerk. Salary not less than £1,500. J. G. Monro, Town Clerk, City Chambers, Glasgow. (January 31.) See advt. in this issue.

Tenders Wanted.

Latest date for sending in tenders in parentheses.

Artisans' Cottages—Plans, &c., invited. W. Bagshaw, Clerk to District Council, Public Offices, Wembley. (February 8.)

Bookbinding. Town Clerk, Town Hall, Peckham Road, S.E. (January 16.)

Boilers—Lancashire. R. Hilton, Town Clerk, Swindon. (January 24.) See advt. in No. 623.

Brick and Flag Plant. J. Thomas, Town Clerk, Guildhall, Swansea. (January 30.)

Bridge Construction. The Chairman, Rural District Council, 80, Guildford Street, Chertsey. (January 30.)

Building Cottage, Sheds, Office, &c. E. J. Gowen, Clerk to District Council, Town Hall, Croydon. (January 18.) See advt. in No. 622.

Building Valve House. F. W. Stevenson, Gas Works, Coventry. (January 16.)

Cast-Iron Pipes. E. W. Dixon, 14, Albert Street, Harrogate. (January 28.)

Chimney Shaft. R. M. Prescott, Town Clerk, Town Hall, Fulham. (January 18.) See advt. in No. 621.

Clothing. A. B. Pilling, Metropolitan Water Board, Savoy Court, Strand, W.C. (January 16.) See advt. in No. 623.

Coal Conveyor for Electric Light Works. Keighley Walton, Town Clerk, Town Hall, Halifax. (January 31.)

Contracts—Articles and Works. T. Holland, Town Clerk, Town Hall, Chelsea, S.W. (January 25.)

Contracts—Services and Materials. H. J. Smith, Town Clerk, Town Hall, Kennington Green, S.E. (January 26.) See advt. in No. 623.

Conversion of Town Hall into Police Station. H. W. Gibson, Shire Hall, Chelmsford. (January 19.)

Council House and Library. W. Ashford, Clerk to District Council, Public Hall, Erdington. (January 25.)

Electrical Fire Alarms. T. Duncombe Mann, Asylums Board, Embankment, London, E.C. (January 24.)

Electric Mains. B. Dufton, Town Clerk, Municipal Offices, Pudsey. (January 20.)

Electrical—Motors, Water Purifying Plant, and Stores. W. A. Vignoles, Borough Electrical Engineer, Corporation Electricity Works, Grimsby. (January 23 and February 1.)

Electricity Supply (Port Elizabeth, South Africa). Davis and Soper, 54, St. Mary Axe, London, E.C. (January 16.)

Electric Tramways (Shanghai). Messrs. Pook and Co., 63, Leadenhall Street, E.C. (March 31, 1905.)

Fire Escape Staircase, &c H. A. Mullens, Union Offices, Bulcamp, Halesworth, Suffolk. (January 30.)

Footbridge. C. W. Tagg, Town Clerk, Town Hall, Camberwell. (January 23.)

Gas Plant. J. McG. Jack, 25, Waterloo Place, Edinburgh. (January 30.)

Granite and Slag. Urban A. Smith, County Surveyor, Hatfield. (January 28.)

Granite and Slag. A. J. Metcalf, District Surveyor, West Street, Bourne. (January 24.)

Granite Setts (City of Capetown). Davis and Soper, 54, St. Mary Axe, London, E.C. See advt. in No. 623.

Heating, Ventilating, and Hot Water Plant. R. W. Partridge, Asylum Committee Office, 6, Waterloo Place, S.W. (January 23.)

Iron Pipes. B. F. Meadows, Town Clerk, Town Hall, Hastings. (January 23.)

Iron and Steel Work. Chairman of the Gas Committee, Gas Office, Town Hall, Manchester. (January 26.)

Libraries—Competitive Designs invited. Chief Librarian, Public Library, Royal Avenue, Belfast. (January 17.)

Light Railway Construction. W. Knocker, Town Clerk, Castle Hill House, Dover. (January 16.)

Loans of £50 and Upwards. Haswell Brown, Borough Accountant, Town Hall, Sunderland. See advt. in this issue.

Loan—£1,700. R. T. Griffiths, Clerk to Union, Hay, Hereford. (January 18.)

Loan of £3,500. L. A. Skinner, Clerk of District Council, Broadstairs. (January 21.)

Penstocks, and Sluice Valves. E. W. Dixon, 1A, Cambridge Crescent, Harrogate. (January 18.)

Police Court, Cottage, &c. W. J. Freer, Clerk to County Council, 10, New Street, Leicester. (January 21.)

Portland Cement. E. W. Dixon, 14, Albert Street, Harrogate. (January 28.)

Reservoir. Sir Samuel Johnson, Town Clerk, Guildhall, Nottingham. (February 13.) See advt. in No. 623.

Restoration. G. L. Gomme, Clerk of London County Council, County Hall, Spring Gardens, S.W. (January 24.)

Retubing Condensers. M. Kirkley, Town Clerk, Town Hall, Ripon. (January 18.)

Road Works. R. M. Prescott, Town Clerk, Town Hall, Fulham. (January 18.)

Road and Paving Works. F. Stevens, Clerk to District Council, Beckenham. (January 23.)

School. G. L. Gomme, Clerk of London County Council, County Hall, Spring Gardens, S.W. (January 24.)

School—Competitive Designs invited. Buildings Sub-Committee, Education Committee, 8, New Road, Oxford. (February 1.)

School Buildings—Remodelling. Competitive Designs invited. J. W. Watkins, Education Office, Llanelly. (January 31.)

School—Competitive Designs Invited. Premiums £50, £30, and £20. Hy. Hamer, Town Clerk, Town Hall, Preston. (February 28.)

Schools—Designs Invited. Premiums £50 and £25. C. G. Watkins, Education Office, Aylesbury. (February 28.)

Sewage Disposal Works. R. W. Evans, Clerk to Sowerby Bridge District Council, Commercial Road Chambers, Halifax. (January 28.)

Sewerage Works. J. E. Rodber, 30, Kingston, Yeovil. (January 21.)

Sewerage Works. F. Winterbotham, Clerk to Rural District Council, 5, Rowcroft, Stroud, Glos. (January 26.)

Sewerage Works. J. H. Williams, Town Clerk, Ludlow. (January 21.)

Sewage Disposal Works. A. J. H. Ward, 42, Church Street, Harwich. (January 24.)

Steamers. Two Twin-Screw Saloon. H. W. Cook, Public Offices, Egremont, Cheshire. (January 16.)

Steel Pipes. E. W. Dixon, 14, Albert Street, Harrogate. (January 28.)

Stores and Materials for Public Works Committee. John Price, City Engineer, Council House, Birmingham. (January 20.) See advt. in No. 623.

Tramways—Permanent Way. J. M. Hayton, Town Clerk, Court Buildings, South Shields. (February 20.)

Water Mains, &c. H. E. Stratton, Clerk to Rural District Council, Pyle Street, Newport, I. of W. (January 18.)

Water-Mains. W. P. Nicholas, Council Offices, Pentre R.S.O., Glam. (January 20.)

Water Supply Contract—Engine House, Boiler House, and Chimney Stack. J. Morton, Town Clerk, Town Hall, Kidderminster. (January 20.)

TO CONTRACTORS.

IT WILL PAY YOU
to Subscribe to
THE MUNICIPAL JOURNAL.

6/6 per year, post free.

Office: 12, SALISBURY SQUARE, LONDON, E.C.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS.
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE.
15, Hanover Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

ROAD SCAVENGER.
F. COWLEY, C.E.,
Launceston, Cornwall.

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

*** For conditions of insertion in this column address The Manager, MUNICIPAL JOURNAL, 12, Salisbury Square.*

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION

IS FAR IN EXCESS

OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL, 12, SALISBURY SQUARE, LONDON.

BIRKBECK BANK

ESTABLISHED 1851.

2½ per cent. INTEREST

allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST

allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.
STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary,
Southampton Buildings, High Holborn, W.C.

TEMPERANCE PERMANENT

BUILDING SOCIETY,

4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS

For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years.
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment.
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

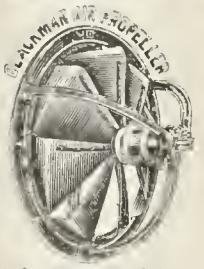
BONDS are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary SHIRLEY FUSSELL.

BLACKMAN



ELECTRIC FANS.

GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

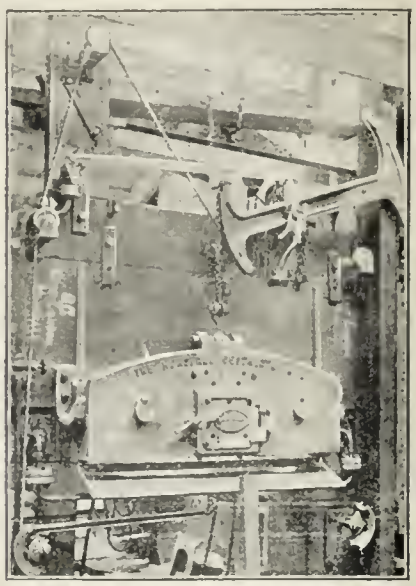
WILLIAMSON

ASHTON-UNDER-LYNE,
Telephone 320.

FOR
TICKETS
AND
PUNCHES
FOR
TRAMWAYS, &c.

TICKET NIPPERS.

TICKETS, DATING MACHINES, AND ISSUING CASES
FOR RAILWAYS, BATHS, &c.



Portion of Plant for Bloemfontein, South Africa.

Silver Medals Sanitary Institute of Great Britain, 1896, 1902 and 1903.

Gold Medal Brussels Exhibition, 1897.

THE

HORSFALL DESTRUCTOR Co., Ld.

LEEDS,

AND

19, OLD QUEEN STREET, WESTMINSTER, S.W.

Telegrams: "DESTRUCTOR, LEEDS" "DESTRUCTOR, LONDON" A B C and Lieber's Standard Codes used.

Telephone: LEEDS No. 2006 Central. LONDON No. 263 Victoria (G.P.O.)

EQUIFEX DISINFECTORS

SATURATED STEAM (Patent)

Adopted by the Metropolitan Asylums Board for the Brook Hospital; H.M. War Office for the ROYAL VICTORIA HOSPITAL, NETLEY, and by the Governments of India, Victoria, New South Wales, &c.; and the recent Disinfection Stations of the Boroughs of Lambeth, Fulham, Battersea, Brighton, &c., &c.

Rapidity in Operation. Absolute Immunity from Damage by Scorching. Economy in Fuel. Automatic Control and Record of the Work Done.

The only apparatus complying with the recommendations of the International Sanitary Congress, Buda-Pesth, 1894. Only Medal for Steam Disinfectors, Sanitary Institute Congresse, and highest awards wherever exhibited. Over 1,200 in actual use in all parts of the world.

SPRAY DISINFECTORS, for ROOMS, &c., reduces to a minimum the disturbance of Inmates. Cost a fraction of the time and expense required in use of SO_2, and disinfect with certainty. THOUSANDS IN ACTUAL USE.

THE PASTEUR FILTER

The only Filter awarded Grand Prix Paris, 1900.

OFFICIAL GOVERNMENT STATEMENT.

"Wherever the Pasteur Filter has been applied Typhoid Fever has disappeared.'

J. DEFRIES & SONS, Ltd., 146 & 147, HOUNDSDITCH, LONDON, E.C.

"PERFECTION"

CHEMICAL FIRE EXTINGUISHER.

Highest Award International Fire Exhibition.

Silver Medal International Inventions Exhibition, Brighton.

Cannot get out of Order.

Always Ready.

THE SIMPLEST & MOST EFFECTIVE CHEMICAL EXTINGUISHER IN THE MARKET.

NO COMPLICATIONS WHATEVER.

Already adopted by City of London Asylum, the Brighton Corporation, London and Brighton School Boards, many Workhouses, Fire Brigades, &c. As supplied to

Isolation Hospital, Leyton. Throat and Ear Hospital, Brighton. L...estoft Hospital. East Suffolk and Ipswich Hospital. L.N.W. Railway. L.S.W. Railway. U.D.C., Portslade-by-Sea.

PRICE ONLY

£2 2 each 3 gallons size.
£3 3 ,, 5 ,, ,,

FRANK WALKER & CO.,

27-28, KING WILLIAM STREET, LONDON, E.C.

IN PREPARATION.

Demy 8vo., cloth gilt, 3s. 6d. Post free, 3s. 11d.

THE

MUNICIPAL YEAR BOOK

For 1905.

COMPLETELY REVISED.

The new issue has been brought UP-TO-DATE

CONTAINS

MANY NEW FEATURES.

It is undoubtedly the

MOST VALUABLE MUNICIPAL WORK of REFERENCE published.

Comprising a Budget of information on municipal matters not elsewhere available.

*** *Full particulars, with specimen pages, will be sent on application to the Manager.*

LONDON: EDWARD LLOYD, Limited, 12, SALISBURY SQ., E.C,

Printed and Published by EDWARD LLOYD, Limited, 12, Salisbury Square, London, E C

352.03
MUNJ

THE
MUNICIPAL JOURNAL

No. 625.—Vol. XIV. FRIDAY, JAN. 20, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. One Penny.

Official Advertisements.

CITY OF GLASGOW.

TOWN CLERKSHIP.

THE Corporation of Glasgow invite Applications for the office of TOWN CLERK of the City, which is about to become vacant through the resignation of the Subscriber.

The person appointed to the office, in addition to performing all the duties appertaining thereto at common law, under statute, or otherwise, will be required to act as law agent, parliamentary solicitor, clerk and secretary to the Corporation in relation to all the business of its various departments for the time being, including the general department, and the police, tramways, water, gas, electricity, city improvements, parks, markets, and telephone departments, and of all or any trusts, boards, or commissions, now existing, or which may hereafter be created in connection with the Corporation, or in which the Corporation may be interested.

The tenure of the office is now regulated by the provisions contained in Section 17 sub-section (1) of the Glasgow Corporation and Police Act, 1895. The salary (which will not be less than £1,500 per annum) to be paid to the Town Clerk in respect of the whole duties and services to be performed by him as above-mentioned, and the other terms and conditions upon which the office is to be held, will be such as may be mutually arranged and agreed upon between the Coporation and the person receiving the appointment, subject to the provisions of the said Act.

Sealed applications, marked on the outside "Town Clerkship," giving full particulars as to the experience and qualifications of the applicant, to be addressed to, and lodged with, the Subscriber on or before Tuesday, the 31st instant.

JAMES G. MONRO,
City Chambers, Glasgow. Town Clerk.
6th January 1905.

URBAN DISTRICT OF FINCHLEY.

ENGINEER'S AND SURVEYOR'S DEPARTMENT. JUNIOR CLERK.

THE Council invite applications for the above appointment, at a salary of £72 10s. per annum.

Candidates must be competent to assist in keeping the books and accounts of the department, and assist generally therein.

Preference will be given to applicants with experience in a municipal engineer's office, and with a knowledge of shorthand and typing.

Applications, endorsed "Junior Clerk," made on forms provided, which may be obtained from the undersigned, and accompanied by copies of not more than three recent testimonials, to reach me by not later than 5 p.m. on the 31st instant.

E. H. LISTER,
Clerk to the Council.
Council Offices, Church End, Finchley.
11th January, 1905.

Official Advertisements.

METROPOLITAN BOROUGH OF BERMONDSEY.

CONTRACTS.

THE Council of the above Borough is prepared to receive TENDERS for the SUPPLY of the undermentioned ARTICLES for one year from the 31st March, 1905 :—

Asphalte.
(s) Ballast, Hoggin and Sand.
(s) Bricks.
(x) Broken Guernsey Granite.
Coals.
(x) Coke.
Disinfectants.
(x) Drain Pipes.
(x) Dust Pails.
(x) Flints.
(x) Granite Kerb and Tram.
(x) Granite Pitchings.
(x) Haberdashery, &c.
(x) Hardwood Paving Blocks.
Hire of Horses, &c.
(x) Ironmongery.
Lime.
(x) Oils, Soaps, &c.
(x) Paints and Oils.
Portland Cement.
Printing.
(x) Scavengers' Brooms, &c.
(x) Sewer Boots.
(x) Sewers Ironwork.
Shoeing Horses.
Stationery.
Timber.
Tyres.
(s) Uniforms.
Veterinary Attendance.
Winding Clocks.
(x) York Paving.

Samples must be sent with the above marked (s), and samples of those marked (x) can be seen at the Council's Offices, Town Hall, Spa Road, S.E. The person whose tender may be accepted will be required to enter into a contract for the due performance of the work.

Canvassing either personally or by letter will disqualify any party tendering. The Council does not bind itself to accept the lowest or any tender.

Forms of tender and other particulars can be obtained on application to the undersigned.

Tenders, addressed to the Town Clerk, and endorsed "Tenders for ——" (as the case may be), must be delivered to the undersigned not later than 4 p.m. on Monday, 6th February, 1905.

FREDK. RYALL,
Town Clerk.

Town Hall, Spa Road.
18th January, 1905.

COUNTY BOROUGH OF SUNDERLAND

THE Corporation are prepared to receive LOANS of £50 and upwards on security of the Rates of the Borough, at six months' notice or for a fixed period.

For further particulars apply to Haswell Brown, Borough Accountant, Town Hall.

Sunderland.
13th December, 1904.

Official Advertisements.

NORTHAMPTONSHIRE COUNTY COUNCIL.

RECORD AND STATIONERY CLERK.

WANTED, in the Office of the Clerk of the County Council a RECORD AND STATIONERY CLERK.

A practical experience in dealing with stationery and printing matters; also with the arrangement and filing of records and documents is essential, and experience in county or borough local government offices is very desirable.

A detailed list of duties and form of application may be obtained on request (accompanied by a stamped and addressed envelope) from the undersigned, and applicants are advised to deal in their application with their qualifications to carry out the particular duties specified.

The appointment will be terminable by one month's notice; the commencing salary will be £120.

Applications must reach the undersigned not later than the 6th February, 1905, together with copies of not more than three recent testimonials.

By order.
H. A. MILLINGTON,
Clerk of the County Council.
County Hall, Northampton.
16th January, 1905.

WALTHAMSTOW URBAN DISTRICT COUNCIL.

FEMALE ASSISTANT INSPECTOR OF NUISANCES.

THE Walthamstow Urban District Council invite Applications for the Appointment of a FEMALE ASSISTANT INSPECTOR of NUISANCES for their district.

The duties will consist of house-to-house visitation, advising mothers as to care of and feeding of infants, visiting premises where females are employed, making inquiries into infectious cases, and such other duties as the medical officer and inspector of nuisances may require.

Candidates must have had practical experience in the above-mentioned duties.

The salary will be £100 per annum, increasing by yearly increments of £5 to £130.

Sealed applications, marked on the cover "Lady Inspectorship," enclosing copies of not more than three testimonials of recent date, to be delivered to the undersigned, at the Town Hall, Walthamstow, not later than 5 o'clock p.m. on Friday, the 3rd day of February, 1905.

Canvassing will disqualify.

C. SYDNEY WATSON,
Clerk of the Council.

Town Hall, Walthamstow.
17th January, 1905.

PROMOTION impossible without good Penmanship. Rapid tuition. Particulars for stamp. N. Broadbent (Prizeman and Medallist), Alston's, College, Burnley.

WILL JENKINS

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

If you want the Best

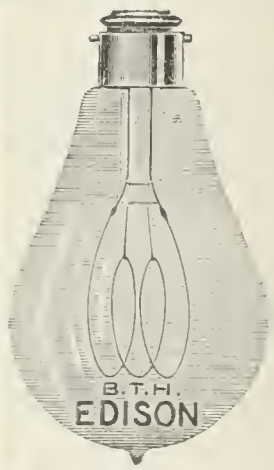
REFUSE DESTRUCTOR,
MECHANICAL STOKER,
or FURNACE,

Write to

MELDRUM

TIMPERLEY, near MANCHESTER,
AND
66, VICTORIA STREET, WESTMINSTER.

12,000 AT WORK.



MADE IN RUGBY.

TRUISM No. 3.

"Verbum sat Sapienti."
i.e.—A word is enough to a wise man.

Do not use Electric Lamps like oil chimneys—until they break. The longer Electric Lamps are burned after, say 700 hours, the more they cost for current per candle-power hour. Remember that the

B.T.H. EDISON
ELECTRIC LAMP

is the most economical in current consumption, and that it has a better maintenance of candle power than any other lamp.

Obtainable from all principal Electricians, Ironmongers, Stores, &c.

Manufactured by the B.T.H. CO., Ltd., RUGBY.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

IN PREPARATION,

The MUNICIPAL YEAR BOOK, 1905.

OFFICIALLY REVISED—IMPROVED AND EXTENDED.

INVALUABLE TO COUNCILLORS & OFFICIALS.

EDWARD LLOYD, Limited, 12, SALISBURY SQUARE, LONDON, E.C.

BROMLEY, BATSTONE & KIRK,

Electrical and Mechanical Engineers and Contractors

City Office: 24 to 26, HOLBORN, E.C.

Acton Branch: 6, CHURCHFIELD ROAD, ACTON, W.

Telephones: 4839 HOLBORN; 180 CHISWICK.

Sole London Agents for the Hyde Electrical Manufacturing Company, Ltd.

Speciality: **ELECTRIC LIFTS** (LOW CONSUMPTION GUARANTEED).

Electrical and Mechanical Engineering work of every description carried out upon the shortest notice.
Best Workmanship and Materials. *ENQUIRIES SOLICITED.*

THE MUNICIPAL JOURNAL
ESTABLISHED AS "LONDON." THIRTEENTH YEAR OF ISSUE.

No. 625.—Vol. XIV. JANUARY 20, 1905.

SLUM REMOVING.

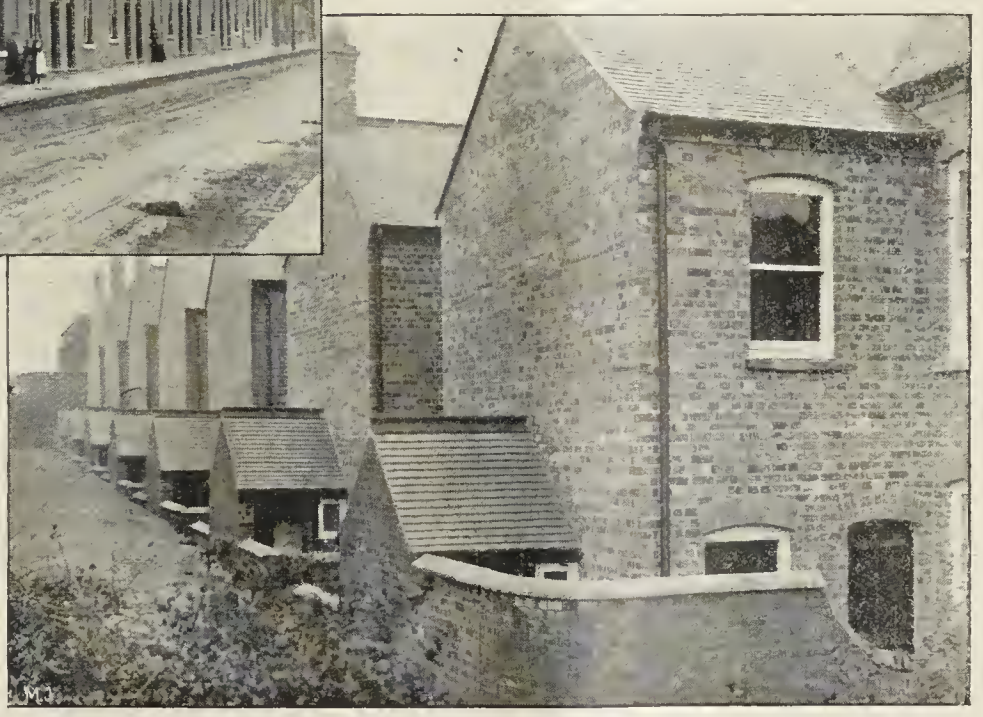
The City Council of Lichfield has Just Carried Out an Interesting Housing Scheme. Condemned Cottages Razed and New Workmen's Dwellings Erected. The Improvement will Cost Less than a Penny Rate and is Greatly Appreciated by the Citizens.

THE Town Council of the city of Lichfield has recently erected fourteen dwellings for persons of the working classes at a cost of about £4,900, and the scheme is one that contains some interesting features. On the site on which the dwellings have been erected formerly stood fourteen old cottages and buildings which were closed by order of the magistrates, the whole area being considered insanitary. These old houses were purchased by the Council — some by private treaty, others by public auction—and the remainder were acquired compulsorily under a Provisional Order obtained by the Council. The total cost was £1,600, for which the Local Government Board issued its sanction to the borrowing at interest by the Council, the money to be repaid with interest within eighty years.

LICHFIELD'S NEW COTTAGES.

The Council subsequently decided to pull down the buildings and erect fourteen cottages on the site in accordance with plans and specifications prepared by the city surveyor, Mr. Emerson Brooke, who estimated the cost, including removal of the old buildings, excavating soil, and building boundary wall, at £3,080 10s., the total area available being 1,232 square yards, i.e., 88 yards to each house, or nearly four times the size of the area of each of the old buildings. Application was accordingly made to the Local Government Board for sanction to borrow the further sum of £3,150 to complete the improvement scheme. The Local Government Board instructed one of its inspectors (Mr. H. P. Boulnois) to hold a public inquiry respecting the Council's application, to which no opposition was raised, and the plans were approved, and the necessary sanction was granted by the Local Government Board to borrow the money, the latter to be repaid with interest within 60 years from the date of the borrowing.

The Council advertised for tenders for erecting the cottages, ten being received. That of Mr. J. R. Deacon, builder, Lichfield (now trading as Deacon Brothers), amounting to £3,258 9s., was accepted by the Council in March last, and the work was immediately commenced, the whole of the houses being completed by the end of December, the time fixed by the contract. All the houses have since been let at rents of 5s. 6d. each, including rates, about thirty applications being received for the houses. The cottages present a good appearance, the rooms are admirably arranged, and the whole of the building operations have been satisfactorily carried out by the contractor under the superintendence of the city surveyor.



BACK VIEW.

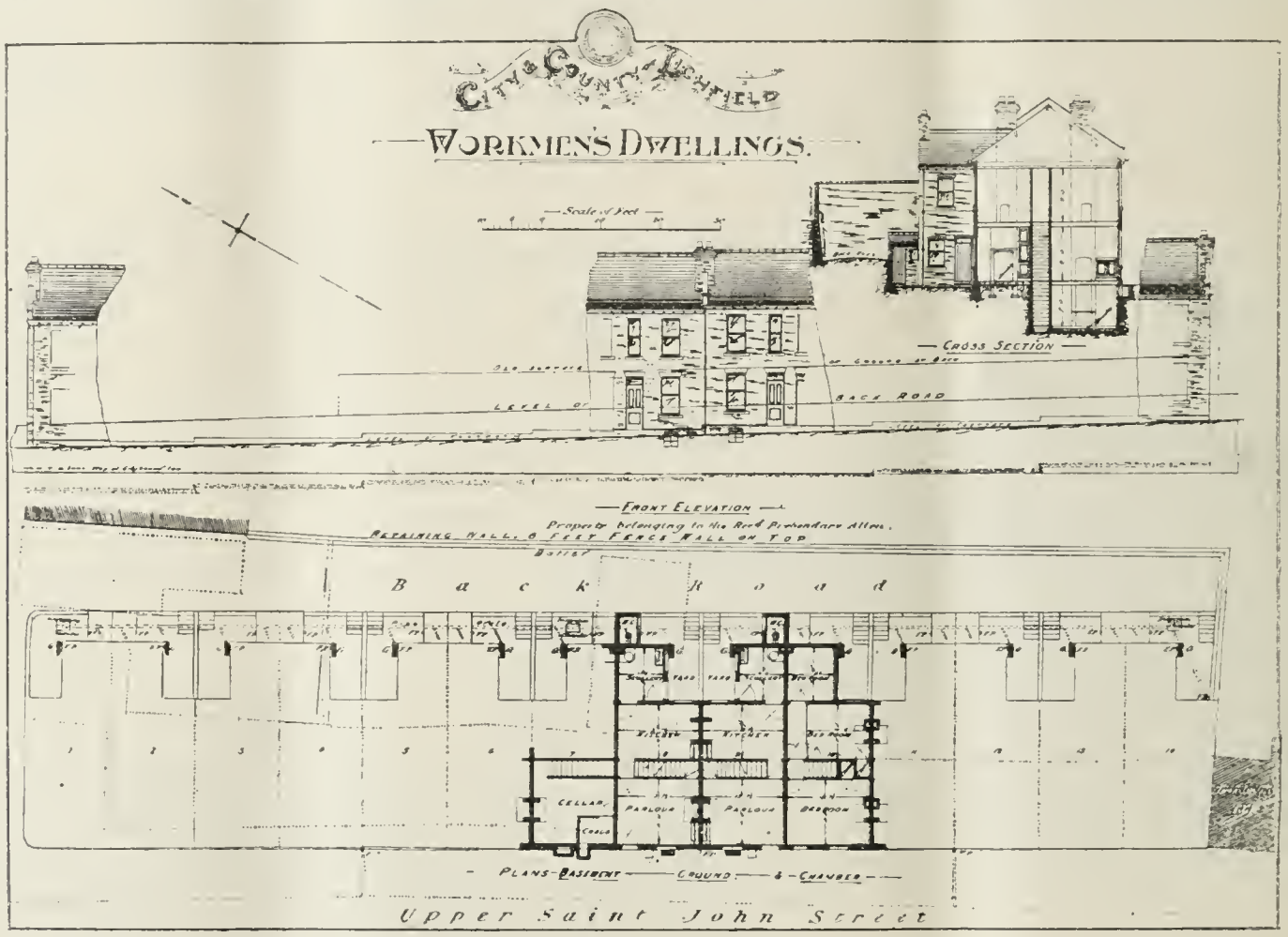
The improvement, which will involve an annual charge on the rates of less than 1d. in the £, is greatly appreciated, and the Council is to be commended in its efforts to improve the sanitary condition of the city.

The ground at the backs of the old houses belonging to another owner, joined up to, and was nearly as high as, the houses themselves; consequently the site has been an awkward one to deal with, requiring a considerable amount of excavation at the backs of the old houses for setting back the new ones, and forming a back road, which on one side has a retaining wall with

a 6ft.-high fence wall on top. This road, being on a somewhat higher level than the yards, is approached therefrom by steps; and the arrangement has considerably lessened the cost than if sunk to the level of the yards, and at the same time it maiutains a straight drive in from the lane.

Each house contains a cellar in the basement, divided for coals and keeping purposes. On the ground floor there are a parlour, 13ft. 7½in. by 11ft.; kitchen, 13ft. 7½in. by 9ft.; and scullery 9ft. by 7ft. 6in., whilst upstairs are three bed-rooms, front one 13ft. 7½in. by 11ft., and two others 10ft. 6in. by 9ft., and 9ft. by 7ft. 6in. respectively. Each house has a separate yard and au outside w.c. Gas and water have been laid on to each house.

The front walls of the houses are built in Leicestershire facing-bricks, with Hollington and York stone dressings; all other walls are in common red bricks; at the backs, windows and door heads and sills are built in best blue bricks. The roofs are covered with best brindled tiles, fiuished with red roll ridges. The kitchen floors are concreted and finished with a rendering of cement. Lichfield being noted as an "ancient aud loyal city," uaturally contains much old property, but quaint and picturesque, cousequently there is a good demand for the class of house of the above description.



HOUSING IN CANADA.

THE Department of Labour of Canada reports that a special investigation by the Department as to the supply of working class housing accommodation in Canadian cities shows that there is a pronounced scarcity of dwellings suitable for occupation by working people.

Out of 30 cities with more thau 10,000 inhabitants from each of which detailed reports were received, only six instances were recorded at which the obtaining of an adequate supply of houses of this class was not a more or less pressing problem.

The Ontario cities, particularly those within a radius of 70 or 80 miles of Toronto, were those in which the conditions were on the whole most unfavourable.

Accompanying this pronounced and general scarcity of houses, there has been a marked upward tendency in rentals during the past five years, the increase having ranged from 15 to 40 per cent., and in the great majority of cases, including Toronto and Montreal, and other of the larger industrial centres, rents are still increasing. Winnipeg perhaps furnishes the example of highest rents paid at present for working men's houses, a six-roomed dwelling with water in central location bringing from £5 4s. 2d. to £6 5s. a mouth, and four-roomed cottages without water in the outskirts being rented at £3 2s. 6d.

"BACK TO BACKS."

KEIGHLEY CORPORATION AND THE BUILDERS.

A CONFLICT has ariseu between the owners of real estate at Keighley aud the municipal authorities. The question at issue is whether or not back-to-back houses shall be raised withiu the borough boundaries. Prior to 1891 blocks of four back-to-back houses, with 10ft. open space at each end, were allowed under the bye-laws. In that year the Keighley Corporation went to Parliament for certain powers with respect to water, parks, and other matters. In granting these powers the Committee of the House of Commons imposed a condition that back-to-back houses should not be allowed in future, and amendments were accordingly made in the Corporation Bill. Since 1891 no back-to-back houses have been built except at each eud of large blocks of "through" houses.

Recently plans of "blocks of four" exclusively back-to-back houses, with 30ft. space at each end, were submitted to the Corporation, and it was contended by the architect that he had kept within the scope of the House of Commons amendments. The Corporation referred the question to the Local Government Board, which considered it necessary that the language of Regulation 23 of the building rules in the Keighley Act of 1872 should be further amended so as to make it clear that the open space must be at the rear aud not at the side of every dwelling-house.

The regulation provides that every building to be erected and used as a dwelling-house shall have in the rear or at one side thereof an open space exclusively belonging thereto. In order to keep faith with the House of Commons Committee, the Keighley Corporation applied for a Provisional Order with a view to eliminating from the regulation the words "or at one side thereof." These words, it was thought, might be reasonably construed as allowing the erectiou of back-to-back property, which would be contrary to the undertaking given by the Council on acquiring its Bill in 1891.

To take evidence for and against the issue of a Provisional Order, Mr. E. P. Burd, an inspector of the Local Government Board, sat at the Keighley Town Hall last week. After taking evidence, the inspector intimated that he would report to the Local Government Board.

ON Tuesday night a meeting took place between the representatives of the Sunderland Corporation, the Sunderland Rural District Council, and the parishes of Bishopwearmouth Without and Fulwell, in connection with the negotiations which are proceeding for the extension of the Sunderland borough boundaries. The matter will be considered by the parishes concerned, and a reply given in due course.

MUNICIPAL RESPONSIBILITY.

A Statesmanlike View of the Present Position of Civic Activity and a Plea for Larger Views. No Toleration of the Unfit. A Badly Governed Town as Great a Failure as a Badly Managed Business.

(By Mr. E. HOWARD, First Mayor of Bexhill.)

IT is as a living organism that a municipality must be regarded, each of its citizens a cell performing a useful function, or, as the government of our towns has been evolved by human experience, it may be likened to a great machine, each one of its citizens a part of its complicated mechanism—a cog, a wheel, a spring, a valve—working together in perfect unity. To get the very best out of our town life this thought of our inter-dependence on each other must be insisted on with more emphasis than it has been. It is for every citizen to feel that town government is a true democracy, that he has as much voice in its affairs as any other citizen, and that, having the power, he ought to accept the full share of his responsibility.

Now, with this idea in mind, what are some of the matters which open before us in the immediate and distant time as claiming our sympathy?

Firstly, the Poor Law must be stripped of some of its absurdities and terrors. National legislation will be necessary, but the impulse which will force it on must come from the councils and boards of guardians, which are brought face to face with the defects of our present system. It is not in the interests of a community that a man who is merely unfortunate in falling ill and losing work should be allowed to slide into the abyss. On grounds of economy alone, outside the humane tie which should bind the municipal organism together, there shonld be some machinery for substantial aid and rescue before absolute destitution commences. What we need is a widening out of the family bond into our official relations with the poor.

Some system of old age pensions, locally administered, will have to be devised. In any case the entire cost of keeping the poor falls upon the locality in which they reside. The only question is the best way of keeping them. We pension the policeman and the soldier long before they cease to be able-bodied, and I approve of granting a pension to them, but I can see no reason why other citizens who work harder than these public officials, who are paid less than these officials, and who make a greater contribution to the increment of capital than they do, should not have a stronger claim than they have to be provided for when old age overtakes them.

Municipal Control of Public Houses.

I look forward to the time, notwithstanding the recent amendments to the Licensing Acts, when the control of public-houses will pass into the hands of the municipal authorities. I am not an abstainer, and I have no personal feeling against the trade, but licences are granted for the benefit of the community—not the private enrichment of the publican and brewer; and public interest must in the end be paramount. Many public-houses are well conducted, but others are a curse and nuisance to a town, and the town authorities should have the absolute control over all licences within its area.

This would not mean prohibition, but it would probably mean the wiping out of many low drinking dens, which are now the fruitful sources of crime and poverty. I believe also that it would mean a revolution in the character of the public-houses. The dirty, stuffy, crowded taverns would make way for real houses of refreshment, decent, sanitary, and attractive, where a respectable citizen would not be ashamed to be seen with his wife and daughter. And some of these might well be under direct municipal control, in which the balance between the sale of intoxicating and non-intoxicating drinks would be at least evenly held.

Municipal Co-operation.

Municipal trading has been greatly abused and misrepresented, but it has taken firm root, and we may be certain that, greatly as it is developed in recent years, it will make even more rapid strides in the time to come. It is limited at present, and rightly limited I think, in this experimental stage to those things which are in universal demand, and which are, as a rule, supplied by monopolist private companies. The municipality rarely enters into competition with the private trader, but it covers ground which the capitalist would otherwise occupy—frequently with great profit to himself. The supply of water, gas, electric light, baths, and in cases where the accommodation is limited, the building of lodging-houses and workmen's dwellings afford the principal scope for corporate trading enterprise.

When we grasp in all its meaning the true communal ideal, the thought of the capitalist exploiting us individually for his private profit will be seen in its ludicrous nakedness. Most of the ferment against municipal trading comes from the large capitalists, who see that in course of time they will be shut out from what have heretofore been very profitable fields of investment, and that the community as capitalist in enterprises in which the community has supreme interests is a dangerous rival to private gain.

In the coming years, with fuller knowledge of the advantages which municipal co-operation offers, its area will be greatly extended. There is sure to be a great development in the provision of public baths and washhouses. Municipal pawn-shops, slaughter-houses, farms—utilising the town sewage—bakeries and dairies will, I believe, be almost universal in the next generation.

Causes of Municipal Adversity.

Your parsimonious town will be a town of mean streets and starved institutions, and no well-to-do people who stndy the comfort of themselves or their children will come near it. No successful community can in these days be organised on the lines of a home of limited means where all the work is done by an underpaid, over-wrought general servant. The aggregate community can obtain by co-operation in its public service a standard of comfort which would be impossible by any individual effort on the part of the poorest section. In this way the comfortable classes do, as they ought to do, bear their share in lessening the burden on townsmen of humble means.

What a town has to decide for itself under its powers of self-government is the class of establishment it is going to keep up. Is it to be the cook-general or a house-parlourmaid, or is it going to blossom forth into keeping a butler and a footman? The character of the municipal establishment will, to a large extent, fix the class of residents and visitors. The badly drained, badly lighted, badly governed town, whatever its natural advantages may be, will be as great a failure as your badly-managed business, and the responsibility for municipal adversity can usually be placed at the door of some insane desire to keep down the rates at a critical moment when some important public improvement is urgently needed.

Officials and their Salaries.

The town should be a model employer of labour, and by this I do not mean that excessive salaries and wages should be paid, but that a fair and full wage should be paid for a fair and full day's work. The public servant does his work in a fierce light of criticism that no private servant is subjected to. Fifty eyes are on him, fifty fault-finders are prepared to level criticism at him, and under these trying conditions only really competent men should be chosen to fill prominent positions. To get the best out of competent public servants, to keep them interested in their work, and their minds free from unsettlement, which would prompt them to look elsewhere for another appointment, they must be well paid. It is the greatest folly to have auy but the best men as public officials. They are often called upon to advise the municipal authority they serve upon matters involving the expenditure of thousands of pounds, and the advice of your cheap official is pretty expensive stuff to handle.

Relentless Administration.

We want more relentlessness in our administration. We want to think less of the jerry builder and more of the little children who are poisoned by defective drains; less of the damage to the reputation of the coal-dealer, who ought to be fined for giving short weight, and more of the poor people who are robbed by him; less of the interests of the butcher who sells diseased meat and more of the people who are condemned to eat it. And in those who control the workings of some of our councils there is too much toleration of the unfit—we have too many square pegs in round holes to get the best out of the machine.

There is always an inclination to give chairmanships and aldermanships to members who occupy prominent positions, and who are the best to do, instead of the best informed and most capable business men.

ENGLISH TECHNICAL EDUCATION.

EXPENDITURE BY LOCAL AUTHORITIES.

THE enormous amount of attention now being paid to technical instrnction by our local authorities is indicated by a Parliamentary Blue Book issued on Wednesday night dealing with the expenditure on technical education during 1902-3.

It states that the total amount thus expended in England and Wales during that period was £1,191,998 3s. This amount is exclusive of the sums allocated to intermediate and technical education under the Welsh Intermediate Education Act, 1889. The amonnt raised by loan on the security of the local rate under the Technical Instruction Acts was £149,665 1s. 6d., the amount of loans (so raised) outstanding was £1,159,941 11s. 7d., and the balance in hand of moneys received and allocated to technical instruction was £598,989 7s. 3d. The total amount of the residue received under the Local Taxation (Customs and Excise) Act by the councils of counties and county boroughs in England (excepting the county of Monmouth) in respect of the financial year 1902-3 was £879,405 5s. 4d., of which £840,253 3s. 4d. was appropriated to educational purposes, and £39,152 2s. to relief of rates, the latter sum including £22,366 11s. 9d. devoted by the London Connty Council to relief of rates. Of the 49 county councils 45 were applying the whole of the residne to technical education, and 3 a part of it to the same purpose. Of the councils of the 64 county boroughs, 61 were devoting the whole, and 3 a part of the residue to technical education.

Further, four county councils and the councils of 31 county boroughs, 101 boroughs, and 211 urban districts in England were making grants out of the rates under the Technical Instruction Acts; and 31 local anthorities were devoting funds to technical education out of the rate levied under the Public Libraries and Museums Acts. Thirty-three local authorities raised sums by loan on the security of the local rate under the Technical Instruction Acts. The total amount of the residue paid to the 13 county councils and the councils of the three county boroughs in Wales and Monmouth was £42,201. These local authorities were devoting the whole of it to intermediate and technical education, chiefly under the Welsh Intermediate Education Act, 1889. In addition, the councils of eight counties, three county boroughs, four boroughs, and eight urban districts were making grants out of the rates under the Technical Instruction Acts. The total amount expended on technical education under the Technical Instruction Acts during the year was £42,781 7s. 1d.

EDUCATIONAL NOTES.

School Holidays and Treats. A School in a Public House. Catching Teachers at Essex and East Riding. Scheme for a New Education Committee at Leeds. Lowestoft and Economy. Who is to Pay for Medical Certificates when Children Stay from School? To Municipalise Education in Scotland. No More Grants in Aid of Local Scholarships!

Bexhill.—It appears that many of the Voluntary schools were closed on the 1st November, because others were used as polling places for the municipal election. The Education Committee informed the managers that unless schools were wanted for election purposes they were not to be closed.

Birkenhead.—On the question of "fair wear and tear," under Sec. 7 of the Education Act, the Board of Education has notified the Education Committee that, speaking generally, and without prejudice, the Board, "as at present advised, is disposed to consider that the liability of the local education authority for 'fair wear and tear,' under Sec. 7 (1) (d) of the Act, extends to the use of any room, whether school-room, class-room, cloak-room, or lavatory inside the building, and does not extend to rooms outside the building, such, for instance, as a lavatory built on the playground."

Blackpool.—The Education Committee has decided to ask the authorities of the Sunday schools to confine their school trips during this year to the two weeks immediately succeeding the 20th June.

Cardiff.—The Education Committee agreed, for this year only, to pay the grant of £20 to the girls' intermediate school. The money was expended upon a Christmas party at the school.

Chatham.—The school attendance officer has reported to the Education Committee that a private school, at which 30 children attended, was conducted at a local beer house, and that he had visited the school on various occasions. The town clerk expressed the opinion that there was nothing illegal in conducting a private adventure school on licensed premises.

Darlington.—The Education Committee has decided to continue the existing arrangements respecting the payment and apportionment of school fees in fee-charging schools until the end of the present educational year.

Derby.—The Education Committee has accepted the offer of the Co-operative Society to award two scholarships at the municipal secondary school, each tenable for three years.

Dudley.—An intimation has been received from the Board of Education, confirming the proposals of the education authority with reference to the upper standard school, namely, that 25 per cent. of the places should be free, and, subject to this condition being made, the fee, annual, and aid grants would be paid on the whole of the scholars attending the school.

Essex.—The county scheme for the training of teachers includes the selection of several students from the secondary schools as pupil teachers. These will receive half-time education during their engagement at secondary schools free, plus travelling expenses, and the following scale of salaries:—Boys (16 years of age), first year £20, second year £22 10s.; girls (16 years), first year £17 10s., second year £20. Selected students must be apprenticed and undertake to serve the county as a teacher for two or four years after having qualified, according as the cost of their education at the secondary school has been wholly or partly borne by the county.

Grimsby.—The vexed question of "wear and tear" has been settled by the Education Committee by an analysis of what is usually needed, and by a specific allocation of work to be done by the education authority and the managers respectively.

Hertfordshire.—The Education Committee has considered the effect of the recent circular (No. 594) on secondary school scholarships. It was resolved to inform the Board of Education that a scholarship scheme had been approved, which involved the training of children intending to become pupil teachers, upon the basis that a grant in aid of scholarships would be continued, under Appendix C of the Secondary School Regulations, 1904.

Hull.—The Education Committee has decided not to allow Roman Catholic students wishing to become teachers to hold bursaries at the Roman Catholic secondary school.

Kent.—The officers of the Education Committee are, in future, to be allowed travelling expenses upon the following scale:—Secretary, 10s. 6d. per day, 21s. per day and night; assistant secretaries, inspector, accountant, and stores superintendent, 5s. and 15s.; other officials, 3s. 6d. and 12s. 6d.

Leeds.—As a result of the November elections, the Liberals, having been returned to power, are arranging for the drafting of a new scheme for the constitution of the Education Committee. The main difference is the entire abolition of the co-opted members, with the exception of the two ladies, whose places are statutorily governed. Instead of 36 members it is proposed to have only 23, 16 councillors, and the two women. The rest may be councillors or not.

London.—The Education Committee resumed its weekly meetings on Wednesday last, when members were confronted with an agenda paper of 180 pages. The County Council will meet, for the first time after the Christmas recess, on the 24th of this month.

Lowestoft.—In view of the increasing expenditure on education, the committee has given instructions for a scheme to be formulated, allocating a definite sum of money to each board of managers for the maintenance, in a state of efficiency, of the individual schools under its management.

Middlesex.—The Education Committee has sanctioned the holding of a course of lectures to teachers on Saturday mornings on the subject of school gardening. The lectures will be given at the County Gardens, Pymm's Park, Edmonton.

Northumberland.—The Education Committee has declined to approve the suggestion that it should defray the cost of medical certificates in the cases of those children absent from school on alleged sickness.

Plymouth.—The Education Committee wrote to the managers of the St. John's Schools stating that they were not complying with the Board of Education requirements in sending the children to church during school hours. The correspondent to the managers says that the children at the school were working under a time table signed by His Majesty's inspector, and that the time table provided distinctly for the children being taken to church.

Scottish Education.—A scheme to municipalise Scottish education, whereby the educational administrational machinery would be placed more directly under the burgh and county councils, thus superseding the school boards, is engaging the attention of a number of educationalists in Scotland, and is shortly to be brought before the Parliamentary Bills Committee of the Glasgow Town Council.

Secondary Schools.—The Board of Education, in its circular (No. 594) notifying the discontinuance of the grants in aid of local Science and Art scholarships on and after 1st January, 1906, caused a great deal of surprise, as many education authorities have been relying upon these grants in the details of their scholarships schemes. The funds which will be released by this decision are to be applied to other purposes in connection with secondary schools.

Somersetshire.—The Education Committee has decided that in those voluntary schools in which managers desire the children to attend service in a place of worship, they shall be required to furnish the County Education Committee with a list of the days which they desire to observe in this way, and that the managers shall be informed that permission will be granted not to open the schools on those days until 9.45 a.m.; provided (1) that the application be for not more than twelve times a year; (2) that it be made in the writing of all the managers; and (3) that a list of the said days be kept permanently and conspicuously affixed in the schoolroom of every school.

Walthamstow.—The Education Committee has given directions that, in future, head teachers are to send at once a copy of all entries in the school log-book which affect assistant teachers to the Committee on School Management, and also to the teacher concerned.

Yarmouth.—The Board of Education has approved the half-time instruction of boy pupil teachers at the grammar school, and the Education Committee is asking for a grant of £4 for each preparatory pupil (girl as well as boy) at the grammar school.

Yorks (East Riding).—The Education Committee is offering 20 scholarships for intending teachers. Every candidate must be under 14 years of age on Aug. 1 this year, and must sign a bond that he or she will become a pupil teacher under the Education Committee of the East Riding. The selected candidates will be sent to an approved secondary school for two years. Afterwards they will become pupil teachers to the education authority, and be attached to an elementary school in the East Riding area. No maintenance allowance is to be paid during attendance at the secondary school.

Yorks (West Riding).—The Education Committee has been considering the returns sent in by the managers showing the time devoted to all religious instruction, and to that distinctive of any particular denomination. It was agreed to make deductions from the head teachers' salaries only, and it was reported that the number of cases was 214, and the total amount of deduction being £983 6s.

NATIONALISATION OF EDUCATION.

A RATEPAYERS' LEAGUE FOUNDED.

AN event of unusual educational interest occurred on Friday evening last, when at a conference of metropolitan ratepayers' associations (adjourned from the 4th November last), held in Toynbee Hall, E.C., it was unanimously resolved to found a national "Ratepayers' League for the Nationalisation of Education."

The chief underlying motive is to bring about the transfer of the cost of education from local authorities to the national exchequer, on the ground that the present incidence of the rate is both unfair and a serious bar to the establishment of that efficient, co-ordinate system of national education demanded by educational experts. Preston and similar towns are held up as examples of this unfairness, for while the levy there is less than a penny in the £, in many districts, particularly round London, it is as high as 3s., and still rapidly mounting. It may be stated that the average rate for the whole country is 1s. 1d.

At the meeting referred to, a provisional committee was appointed to secure the most eminent gentlemen possible as officers, draft the rules, and generally prepare for an intended active propaganda throughout the country. The committee is constituted of two representatives from each ratepayers' association joining the league, under the chairmanship of Mr. G. T. Wood, the chairman of the East Ham Ratepayers' Association, in which borough the movement originated. One of its most ardent adherents is the Ilford Ratepayers' Association.

THE Manchester City Council has appointed a special committee to inquire into the question of the establishment of a municipal works department, under which Corporation enterprises may be carried out directly by the Council, instead of under contract.

QUERIES AND ANSWERS RE SMALL LOANS.

Name of Borough.	Do you borrow money on loan in sums less than £100?	What is the minimum sum and in what multiple?	What form of security do you give?	Have you special powers in this respect?	What rate of interest do you give?
Ashton-under-Lyne	Yes.	£50, or any sum over.	A proper stamped bond.	No.	Half per cent. less than the rate paid for £100 and upwards.
Blackpool	Occasionally.	Not fixed.	Mortgage.	No.	3 per cent. to 3¼ per cent.
Birmingham	Yes.	£10, limit for one person £50.	Modified mortgage.	Authorised by Act of 1883. I am not aware that special powers are necessary.	3 per cent.
Bootle	Yes.	£50, and multiples of £5.	Mortgage, if stamp duty is paid by lender; otherwise a receipt.	No.	3 per cent. for past two years.
Bolton	Yes.	£20 and upwards.	Deposit receipt with 6d. stamp.	No.	3 per cent. to 3¼ per cent.
Colne	Yes.	£10, and multiples of £10.	Deposit note or receipt with 6d. stamp.	No.	3 per cent.
Croydon	Yes.	£10, or any sum over that amount.	Mortgage.	Usual statutory.	3 p.c. until Sept. 29, 1904; after that date, until further notice, 3½ p.c.
Darlington	Yes.	£50.	Ordinary mortgage.	No.	3½ per cent.
Devonport	Yes.	£10, and multiples of £10.	Deposit note.	No.	3 per cent.
Heywood	Yes.	£10, and multiples of £10.	Receipt bearing 1d. stamp	No.	3 per cent. free of income tax.
Middleton	Yes.	£10, and multiples of £10.	Deposit note bearing 1d. stamp.	No.	3 per cent. free of income tax.
St. Helens	Yes.	£20, and in multiples of £10.	Deposit note.	No.	3 per cent. up to £1,000, and 3¼ per cent. over £1,000.
South Shields	Yes.	Any sum from £50	Ordinary mortgage.	No.	3½ per cent.
Stoke-upon-Trent	Yes.	£10, and multiples of £10.	Deposit note.	No.	3 per cent.
Southampton	Yes.	Minimum £20. Maximum £90.	Deposit note bearing 6d. stamp.	No.	3 per cent.
Sunderland	Very rarely.	£50.	Mortgage bond at six months' notice.	No.	3½ per cent.
Warrington	Yes.	£50, and in multiples of £10.	Usual form of mortgage.	No.	3¼ per cent.
West Hartlepool	Yes.	£10 and upwards.	Deposit receipt until the amount reaches £50, when we issue mortgage bond.	No.	3 per cent. to 3½ per cent., according to market conditions.
York	Yes.	£50, and in multiples of £10.	Mortgage deed.	No.	3½ per cent.

Name of Borough.	How and when do you pay the interest?	What is the total amount raised in sums of less than £100?	Do you require additional staff, or is there any additional cost?	Do you consider the result worth the expense and trouble?
Ashton-under-Lyne	By cheque, June 24, and December 24.	£2.232.	No, except stamps for cheques and postage.	No, the result has not come up to expectations.
Blackpool	Half-yearly.	£500.	No.	No.
Birmingham	In cash over the counter. On the anniversary of date of issue, and on production of mortgage for endorsement.	£159.190, of which £54,000 is now outstanding.	More work is involved than is the case with ordinary mortgages.	No.
Bootle	Half-yearly.	—	No.	Yes.
Bolton	Half-yearly.	About £50,000.	No.	Yes, certainly.
Colne	By cheque, April 1 and October 1.	About £6,000.	Not so far, except books and stationery, &c.	Doubtful.
Croydon	By cheque half-yearly.	£596.	No.	Depends entirely on local circumstances.
Darlington	By cheque half-yearly.	A few thousand pounds.	No.	Yes.
Devonport	Yearly.	Scheme only been in operation about two months. Results very satisfactory		Yes.
Heywood	Ordinary warrant, half-yearly.	£600.	Not at present.	Not unless you can raise a large amount.
Middleton	By cheque half-yearly.	£790 since last April.	Not at present.	No.
St. Helens	Half-yearly.	£2,180.	No, except books, &c.	Not under ordinary conditions.
South Shields	By cheque half-yearly.	£4,000.	No.	Yes.
Stoke-upon-Trent	By interest warrants half-yearly.	£1,100.	No.	Not unless a Corporation can obtain Statutory Powers to become a Municipal Savings Bank.
Southampton	By cheque half-yearly.	£135.	No.	No.
Sunderland	Half-yearly.	About £1,500.	Not at present.	No.
Warrington	Half-yearly.	£590.	No.	The experience has been so limited that the expense and trouble have not been felt.
West Hartlepool	Half-yearly.	£2.650.	No.	No.
York	By dividend warrant half-yearly.	Less than £1,000.	No.	Not much trouble, but a convenience to small lenders.

The following boroughs have the subject under consideration:—

Derby, Dudley, Gateshead, Halifax, Huddersfield, Lincoln, Sheffield, Wolverhampton

The boroughs named hereunder have not received loans of less than £100:—

Accrington, Barrow-in-Burness, Bath, Batley, Blackburn, Bradford, Belfast, Birkenhead, Brighton, Bristol, Bournemouth, Burnley, Burton-on-Trent, Carlisle, Cambridge, Chester, Crewe, Darwen, Dewsbury, Eastbourne, East Ham, Eccles, Gloucester, Hanley, Hastings, Harrogate, Hereford, Kingston-on-Hull, Lancaster, Leamington Spa, Leicester, Leeds, Liverpool, Manchester, Middlesbrough, Mossley, Newcastle-on-Tyne, Nelson, Northampton, Norwich, Nottingham, Oldham, Oxford, Preston, Portsmouth, Reading, Richmond, Rochdale, Salford, Scarborough, Stalybridge, Stockport, Southport, Wallasey, West Bromwich, Wednesbury, West Ham, Whitehaven, Wigan, Widnes, Worcester, Yarmouth

Borough Treasurer's Office, Bury.
1st November, 1904.

OFFICIAL & PERSONAL.

BURNLEY TOWN CLERKSHIP.

LAST week the General Purposes Committee of the Burnley Corporation considered the applications for the vacant town clerkship, and selected the following six candidates for further consideration:—

Mr. E. Cooper, solicitor, Blackburn.
Mr. J. W. Halloran, deputy town clerk of Chatham.
Mr. Leonard Hewlett, senior, solicitor, Town Hall, Leeds.
Mr. H. L. Parry, assistant solicitor to the West Riding County Council.
Mr. P. Thomas, town clerk of Leigh; and
Mr. Alfred Varley, town clerk of Colne.

The salary is £700 a year, rising to £900. On Wednesday evening the number was reduced to three—Messrs. Cooper, Parry, and Thomas. The application of Mr. Henry Craven, chief assistant solicitor to the Sheffield Corporation, which arrived late, was also considered.

HORNCASTLE U.D.C. CLERK.

THE Horncastle Urban Council has appointed Mr. R. W. Clitherow, solicitor, Horncastle, as clerk, at a salary of £100 per year, in the place of Mr. H. Tweed, resigned.

FIFTY YEARS OF SERVICE.

MR. H. C. OVERALL, the principal clerk in the Town Clerk's office at the Guildhall, completed on Sunday 50 years' service under the Corporation of the City of London. Mr. Overall is now in his 67th year, but he is hale and hearty, and has no thought of relinquishing the work with which he has been associated since he ceased to be a student at Christ's Hospital, and joined the staff of Serjeant Merewether, then town clerk at the Guildhall.

FREEDOM OF EDINBURGH FOR A LADY.

THE Town Council of Edinburgh on Tuesday considered a special report recommending that the freedom of the city be conferred on certain persons for their "eminent services." It is noteworthy that the list includes a lady—Miss Stevenson, chairman of the city's School Board. The following is the full list:—

H.R.H. the Duke of Connaught.
Lord Reay.
Lord Young, of the Second Division of the Court of Session.
Right Hon. A. J. Balfour.
Miss Flora Stevenson, chairman of the Edinburgh School Board.

The Lord Provost formally moved approval of the recommendations, which, seconded by the senior magistrate, were unanimously adopted.

LORD MONKSWELL'S PORTRAIT.

THE portrait of Lord Monkswell, who was chairman of the London County Council for the year 1903-4, will be presented at the County Hall, Spring Gardens, on Tuesday next, at 2 p.m., by his colleagues, the members of the Council, who, in accordance with their usual custom, have subscribed for the portrait. The portrait is by the Hon. John Collier.

NEW OXFORD MAYOR.

OXFORD City Council on Tuesday elected a mayor to succeed the late Mr. Thomas William Taphouse, the unanimous choice falling upon Alderman Buckill, who has filled the office on three previous occasions.

THE Lords Commissioners of His Majesty's Treasury have just selected Mr. Fred J. Warren (Incorporated Accountant), Borough Accountant, Haverfordwest, to act as a Public Auditor for the purposes of the Friendly Societies' Act, 1896 (59 and 60 Vict., cap. 25), and of the Industrial and Provident Societies' Act, 1893 (56 and 57 Vict., cap. 39).

MAIDSTONE'S NEW TOWN CLERK.

MR. STEPHEN LANCELOT MONCKTON, cousin of the late Sir John Monckton (town clerk of London) has just been appointed town clerk of Maidstone at a salary of £1,000 a year. Out of this sum the new town clerk is to find all offices and staff, but he is at liberty to engage in private practice. Mr. Monckton was educated at Charterhouse, and afterward became a member of the firm of Monckton and Son. For 20 years he has been clerk to the old Maidstone School Board, and for 15 years has acted as deputy town clerk. He was also clerk to the Education Committee, the salary for which appointment—£150 a year—still continues.

DEWSBURY TOWN CLERK'S SALARY.

THE Dewsbury General Purposes Committee had before it on Tuesday an application from the town clerk (Mr. H. Ellis) for an increase of salary. His gross salary is £500 a year, £150 of which comes from his clerkship of the Dewsbury and Heckmondwike Waterworks and the Dewsbury Joint Hospital Board.

It was proposed that the application be adjourned for 12 months, and to that an amendment was moved that an advance of £50 per year be granted. The latter only received three votes, the rest of the committee holding up their hands against it. For the motion about half the members voted, and none against.

THE SCARBOROUGH MEDICAL OFFICERSHIP.

OUT of 43 applicants for the post of Medical Officer of Health for Scarborough, in succession to Dr. F. Dittmar, the following five candidates have been selected to appear before the Sanitary and Lighting Committee to-night (Friday):—

Dr. Duncan Forbes, assistant medical officer of health of Manchester.
Dr. John Knight, assistant medical officer of health of Glasgow.
Dr. J. Spencer Low, medical officer of health of Dewsbury.
Dr. Arthur E. Porter, assistant medical officer of health of Leeds.
Dr. C. Grant Pugh, of London, assistant medical officer of health at the Park Fever Hospital.

The commencing salary of the new medical officer of health will be £350 per annum, increasing by £25 per annum to £400 per annum.

PRESENTATION TO MR. R. H. S. BUTTERWORTH.

MR. R. H. SMETHURST BUTTERWORTH, clerk and solicitor to the Wimbledon Urban District Council, who has resigned his position to practise as a Parliamentary agent (firm, Messrs. Lees and Butterworth, of 87, Palace Chambers, Bridge Street, Westminster), was last (Thursday) evening presented by his colleagues with an illuminated address and service of plate, as a token of their esteem and regard.

The presentation was made by Dr. Evelyn Pocklington, the medical officer of health for the district.

PURITY OF FLOCK BEDS.

THE Home Office is taking up the important subject of the purity of flock beds. At the last meeting of the Health Committee of Glasgow Corporation the town clerk read a letter from the Chief Inspector of Factories to the secretary of that Board, stating that so far the process had not been treated as a dangerous trade, but that in 1897 a departmental committee had gone somewhat fully into the question; that since that date improvements had been effected. The real evil, however, as was subsequently pointed out, arises from the dissemination among the public throughout the country of common flock for bedding and stuffing without the same having been previously washed or disinfected.

SCHOOLS AS SOCIAL CENTRES.

INTERESTING PROPOSAL AT SUNDERLAND.

COUNCILLOR S. M. SWAN is inducing the Sunderland Education Committee to consider the question of utilising the public schools in the evenings as social centres. The idea has been referred to in our columns on more than one occasion, and it is encouraging to see that opinion in its favour is growing.

As some of our readers are aware, a scheme of the kind suggested has already been carried out at Glasgow by the Scottish Christian Social Union, which has for some time been allowed the use of the public schools for this purpose. The work is educational as well as recreative. In each school there is a large room used as a recreation, reading, and smoking room, while smaller class-rooms are used for carrying on the educational part of the work.

A men's club is carried on in these rooms, for the use of which the school authorities make a charge of 15s. per week, 7s. 6d. of which goes to the caretaker for his extra work, the remainder covering the cost of lighting and extra cleaning. To furnish a centre with two billiard tables (half-sized ones were used in this case), bagatelle table, draughts, chess, and dominoes an initial outlay was made of about £50.

At Glasgow it was found that after this was done, where there was a membership of 80 or over, the centre became self-supporting. Two billiard tables yield a revenue of at least 12s. a week (the charge varying from 2d. to 3d. per table for half-an-hour); the subscriptions from 80 members—6d. per month—yield, say, 10s. per week, and an extra shilling or two is generally received from visitors charged at 1d. per visit, while, where successful, Saturday or other evening entertainments are given at a charge of 1d., and an additional income has been secured.

Apart from the 15s. paid to the School Board, the outlay is mostly for newspapers, books, and magazines, the supply of which is largely regulated by the financial and numerical strength of the centre. The education authorities at Glasgow encourage the educational work by undertaking to provide a teacher for any class if not fewer than 12 members enrol. In addition to club membership fees, students pay 1s. per session for one class, 2s. for two classes, and 2s. 6d. for three or more classes; in the last two cases the fee being returned at the end of the session if 90 per cent. of attendances have been made.

Clubs for girls over 15 years of age have also been formed, the fee being 3d. per month, and they are taught sewing, cooking, &c., without extra payment. There are also children's guilds of play, meeting for two hours once a week, and these are also very successfully carried on. Indeed, so successful has been the work in Glasgow that it has been necessary to have an office and paid officials to carry it on. In Nottingham work of a like character is in operation in the public schools, while at Birmingham the use of the schools has been granted, although the work is not yet in progress in them.

Councillor Swan's idea is to make a start in the East End of Sunderland. The cost would be small, and an arrangement might be made for the Education Committee and the Library Committee to defray it, although the cost of equipment might be met by private subscription.

At present in the East End no provision of this kind is made for the people, and the young men can only lounge about the street corners. The cry is, "Close the public-houses," but, says Councillor Swan, until reformers are prepared to provide places for the working men they have no right to close the public-houses, because they are the only places the working men have in many districts. The schools are public buildings and belong to the ratepayers, and if the use of them were granted in the way indicated a most valuable and beneficial work could be carried on.

NOTES AND ANSWERS.

To What Extent Poor Law Guardians may Help the Unemployed. A Justice of the Peace with an Off-Grocer's Licence Cannot Act as a Justice or Preside at the Annual Licensing Session of the Borough. A Councillor and the Advance of Money to his Council. Recovering a General District Rate.

605.—FACTORY ACT, 1901.—Would you kindly answer me the following questions in your valuable paper?—

(1) Does the Factory Act compel all weaving sheds, spinning mills, foundries, or any other workshop to have a drinking supply fitted up?

(2) If not, what steps can my manager take if workpeople are caught carrying water into the workshop?

(3) Can proceedings be taken against the firms which own the premises, or can proceedings be taken against the persons taking the water and the persons whom they have got the water from?—"J. H. W."

(1) There does not appear to be any provision in the Factory Act, 1901, which would require drinking water to be supplied in any of the premises or "factories" specified in this query. A "suitable sanitary drink" is required by the "special rules" applicable to dangerous processes such as lead works, but these would not apply to weaving sheds and such like.

(2) If the local water Act in force embodies, as is usual, the provisions of the Waterworks Clauses Act, 1863, the provisions of Sec. 20 of that Act may be put in force to prevent the unauthorised use of water without any agreement. That section lays down, that, if any person not being supplied with water by the undertakers (that is, the company or the local authority, as the case may be), takes or uses any water from any reservoir, conduit, pipe, &c., containing water belonging to the undertakers, or supplied by them for the use of any consumer, he shall be liable for every such offence to a penalty not exceeding £5.

Water so supplied, and standing in a consumer's pipes, may be the subject of larceny at common law ["Ferens v. O'Brien, 11 Q.B.D. 21 (1883)].

(3) In this case, the provisions of Sec. 18 of the Act above referred to would seem to apply. It is there laid down, in effect, that any person having a supply of water from the undertakers, who uses such supply for purposes other than those provided for in the agreement, shall be liable to a penalty of £2. If, however, the unauthorised use of water by the factory hands and employees is not large in amount, it seems to us that the offence would be regarded as merely nominal, and that probably no penalty would be imposed.

606.—POOR LAW—Power of Guardians to Find Work for the Unemployed.—Will you please inform me through your paper whether the law, as laid down in the following paragraph, has ever been repealed, or quashed, or is it still operative? The point is, are the guardians compelled to find employment for the able-bodied unemployed?—"Mandate issued in 1694 addressed to the overseers of the poor and to the churchwardens for the setting to work of all the poor within your parishes. By virtue of the statute made in the three-and-fortieth year of the reign of our late Sovereign Lady Queen Elizabeth for the relief of the poor: These are to will and require you, whose names are here underwritten, that you, together with the churchwardens of your parish for the time being, do according to the same statute, take order from time to time (for this year to come) for the setting to work all the poor within your parish (as well married as unmarried) that are able to work, and have no means to maintain themselves, nor use no ordinary and daily trade of life to get their living by. And also for the placing out as apprentices all such children within your said parish as are fit to be put forth, whose parents are not able to keep and maintain them. And also for the raising of a convenient stock of flax, hemp, wool, thread, iron, and other necessary ware and stuff in your said parish for that purpose; and also for the providing of necessary relief for all such poor within your said parish, as are lame, old, blind, impotent, and unable to work, wherein if you be found negligent, or shall fail to meet once a month to confer together for the purpose aforesaid, then you are to forfeit 20s. apiece for every month that you shall be found remiss or careless therein. And therefore see that you fail not in these premises at your peril."—"GUARDIAN."

The above "mandate" is based on the famous Poor Relief Act of Queen Elizabeth's reign (43 Eliz., c. 2). The law as here laid down has never been expressly repealed. But it has been practically modified in such an extensive fashion by later statutes and by regulations of the Poor Law Board and the Local Government Board, made pursuant to statutory authority, that the above provisions, except so far as they relate to the old and impotent, and to apprenticing poor children, must be considered as largely obsolete.

Sec. 52 of the Poor Law Amendment Act, 1834, enacts that the relief given to able-bodied paupers and their families out of the workhouse is to be given according to the rules and regulations of the Poor Law Commissioners (now the Local Government Board), and that relief given contrary to such rules and regulations is to be disallowed. The rules so made are very stringent as to the conditions under which outdoor relief shall be given to able-bodied persons. There are two codes of rules in force respecting relief outside the workhouse. The Outdoor Relief Prohibitory Order of 1844 is in force, speaking generally, in rural unions. It practically prohibits outdoor relief, except in cases of "sudden and urgent necessity" and of sickness, also except in a few other cases. The Outdoor Relief Regulation Order of 1852, which applies to a considerable number of urban unions, permits, but regulates, out-door relief in the unions in which it is in force. One-half of such relief must be given in kind, and no relief must be given to any able-bodied male person while he is employed for wages. Every able-bodied male person relieved outside the workhouse must be set to work. The task of work prescribed must be reported to the L.G.B., and must be discontinued if that Board so require.

In cases of exceptional distress in those unions where the Prohibitory Order of 1844 is in force, the L.G.B. has from time to time issued or applied a General Outdoor Relief Test Order, under which the able-bodied poor may be set to work as provided for by the Order of 1852 above mentioned.

607.—JUSTICE OF PEACE—Interested in Grocer's Licence—Disqualified for Acting at Licensing Sessions?—Will you kindly answer the following question in your next issue? I am chief magistrate of a borough town, and hold an off-grocer's licence. Am I in consequence disqualified from presiding at the annual licensing sessions?—"K."

It is clear from the terms of Sec. 60 of the Licensing Act, 1872, that our correspondent is precluded from acting as a justice or presiding at the annual licensing sessions of the borough. That section provides that "no justice shall act for any purposes" under this Act, or under any of the Intoxicating Liquor Licensing Acts—except in cases of charges for drunkenness and such like—who is, or is in partnership with, or holds any share in any company which is a common brewer, distiller, maker of malt for sale, or *retailer* of malt, or of any intoxicating liquor in the licensing district, or in the district or districts adjoining that in which such justice usually acts. The penalty for infringing this enactment is a fine of £100, recoverable by action. If, however, a justice so disqualified sits and takes part in decisions, the proceedings would not be invalid unless it were shown that an actual bias existed.

608.—RECOVERY OF GENERAL DISTRICT RATE Pending Appeal against Assessment.—A. B.'s assessment has been increased from £40 last year to £45 this year. He has appealed against the increased assessment.

(a) Is the collector justified in accepting payment of rates on the old assessment pending the hearing and determination of A. B.'s appeal?

(b) If so, and a period of more than six months elapses between the service of the demand note and the hearing and determination of the appeal, and the assessment is not reduced, can proceedings be instituted against A. B. for recovery of the balance of the rate?

(c) If the collector, on the other hand, is not, in your opinion, justified in accepting payment of rates on the prior assessment, what construction must be placed upon the latter part of Sec. 2 of the Poor Rate Act, 1801, especially as to the phrase "last effective rate?"—"TUDOR."

Sec. 2 of the Poor Rate Act, 1801, provides that notice of appeal against a poor rate by any person rated shall not operate to prevent the rate being levied and recovered by distress, but that until the appeal has been determined no proceedings shall be commenced against such person to recover any greater sum than he shall have been rated to in the "last effective rate." It seems clear that under this provision the collector may accept payment of a portion of the rate demanded equal to that paid under the last preceding rate which has not been appealed against, but that a demand cannot legally be made of the full amount which the appellant has been rated in the last rate. Therefore it would appear that the remedies for the recovery of the balance are not interfered with, nor does time run against the collecting authorities by reason of the acceptance of the amount paid on the basis of the "last effective rate."

This Act applies to the poor rate, and does not appear to govern the collection of the general district rate, which is that referred to by our correspondent.

Dealing with the queries in order—

(a) It seems to us very doubtful whether the collector can safely accept anything less than the full rate demanded, without the risk of finding himself legally precluded, by the lapse of time, from recovering the balance, when (as may happen) the appeal has been decided in favour of the larger amount of assessment.

(b) Proceedings for the recovery of the general district rate must be taken within six months of the demand, by virtue of Sec. 251 of the Public Health Act, 1875, and Sec. 11 of the Summary Jurisdiction Act, 1848, and, as indicated above, it would seem that such proceedings cannot be taken beyond this period, even where the rate demanded is the subject of appeal.

(c) This question does not now arise, having regard to the first paragraph of our reply.

609. — COUNCILLORS PECUNIARILY INTERESTED IN QESTION BEFORE THE COUNCIL—Query No. 587—Urban District Councils.—Re Query No. 587. Will you please inform me if the same applies to urban district councils. The reason I ask this is that our district council is about to replace street lighting by gas by electricity; both are by private companies, two of the councillors are interested in the gas company, and both have been allowed to take part in the discussions, but have not been allowed to vote; but according to your interpretation of the law they were wrong even in discussing it. Why they have been allowed to speak on this question is because the law clerk to the council has interpreted the law to the effect that they can speak and discuss the question, but cannot vote. That means, of course, that by their speaking they can probably influence other members.—"C. B."

We explained, in reply to the query referred to, the law relating to town councillors interested pecuniarily in a contract with their council, so far as the taking part in or voting on any discussion affecting the matter in which they were interested was concerned. The law relating to district councillors is different. Sec. 46 (2) (c) of the Local Government Act, 1894, provides that a person shall not vote at any meeting of the council on any question in which any joint stock company of which he may be a shareholder is interested, but that in the case of a water company or other company established for the carrying

on of works [of a like pnblic natnre (and, no doubt, this wonld inclnde gas and electric light companies), this prohibition may be dispensed with by the connty conncil. The penalty for voting when prohibited under this section is a fine of £20. There would appear, however, to be no provision or regulation which would prevent the district councillors referred to from taking part in the discussion on the gas and electric light question. But clearly it is inexpedient that they should do so, and it seems to us that councillors who value their reputations and are keen on keeping their councils free from suspicion of ulterior motives, will abstain from discussing questions in which they are directly or indirectly interested from a pecuniary point of view.

610.—**CAN A COUNCILLOR ADVANCE MONEY TO HIS COUNCIL?**—Would it be legal to advance money to a Council? If not, kindly quote Acts.—"S. X."

Generally speaking, interest in a contract disqualifies a borough councillor for office as snch, but in this case an express statutory exemption exists. Sec. 12 (2) (b) of the Municipal Corporations Act, 1882, provides that a councillor shall not be disqualified for office by reason only of his having any share or interest in any agreement for the loan of money, or any security for the payment of money only. We have assnmed (from the address our correspondent gives) that his query relates to a borough councillor. A similar regulation, however, is in force as regards the money contracts with their councils of urban and rural district councillors under the provisions of 46 (2) (a) of the Local Government Act, 1894.

611.—**TRACTION ENGINE—Damage to Water Main caused by Engine—Liability of Owner.**—I shall be obliged if you will kindly answer the following:—A traction engine hauled a heavy load of bricks to a new building, and to unload had to draw down a side street; on her way out she was unloaded, but stopped a few miuutes further down the street. Directly it moved on again water was seen coming up through the road, and when examined it proved that the water main was damaged. Can the owner of the traction engine be called on to pay for repairs of the main?—"JIMP."

It is clear in this case that the damage to the water main was caused by the traction engine. Under the circumstances, and even though the traction engine may conform as to size, weight, and loading with the local bye-laws, its owner will be liable for the damage caused by the engine, unless he can prove that the damage was caused through some defect in the main, or throngh the defective state of the road.

612.—**REMOVAL OF DUST REFUSE BY BOROUGH COUNCIL (METROPOLITAN).—Can Council Insist on Dustbin being placed on Pavement by Occupier so as to Facilitate Removal of Refuse?**—The Borough Council of Wandsworth has issued a circular and insists that householders residing in certain areas of Putney and Tooting are to daily place ashbins on the edge of the street kerb. I may say this has greatly incensed a large number of ratepayers, and the Borough Council states that it has issued the circular under the London County Council bye-law of 1893 (see Sec. 16 of Public Health Act, Loudon, 1891). May I ask you to kiudly inform me if Sec. 30 of this Act does not goveru the question, and whether the borough couucil is not bouud to collect from the premises? Not having the 1891 Act by me at the present momeut, I think there is a section near the end which states no bye-law contrary to the provisions of the Act can be valid.—"S."

Sec. 16 of the Public Health (London) Act, 1891, provides (*inter alia*) that the London County Council shall make bye-laws "as to the removal and disposal of refuse, and as to the duties of the occupier of any premises in connection with house refuse, so as to facilitate the removal of it by the scavengers of the sanitary authority." Sec. 30 (1) (a) of the Act lays upon the "sanitary authority"—that is the borough conncil in this case—the dnty of securing the "due removal at proper periods of house refuse from premises, and the due cleansing out and emptying at proper periods of ashpits" (including under this term dust-bins). There does not appear to be any section in the Act which states that no bye-laws contrary to its provisions can be valid. Such a provision is not required, however, as such bye-laws must necessarily be invalid.

It is the duty of the council to undertake the removal of house refuse under Sec. 30 as above cited, bnt the county council is empowered to make bye-laws, subject to confirmation by the Local Government Board, in order to facilitate such removal. It seems to us that the county council has power to pass a bye-law requiring all occupiers of property within the borough to place, or cause to be placed, their dust outside their premises for the purpose of facilitating the collector, provided that no practical inconvenience or obstruction is thereby caused on the highway; and no doubt the bye-law in question has fixed an early hour for placing the bins on the street kerb so as not to interfere with traffic. On the other hand, it is not so clear that the council has power to differentiate as between different parts of its district, and objection might be raised as to the reasonableness of a bye-law which can be applied in so partial a manner. To avoid such an objection, the bye-law should be applied, it seems to us, to the whole of the borough, or else not put in force at all.

Removal of House Refuse by Sanitary Authority (Outside the Metropolis)—Case before the Spelthorne Magistrates.

In connection with the above query, and a recent decision of the Spelthorne magistrates on a summons taken out by an occnpier of property in the district against the local council for the non-removal of house refuse, it will be useful to refer briefly to the provisions of the Public Health Acts on this subject applicable beyond the Metropolis. Sec. 42 of the Public Health Act, 1875, provides that the local authority may, and, when required by the L.G.B., shall, undertake or contract for the removal of house refuse from premises. The Public Health Acts Amendment Act of 1890, (which may be adopted, so far as the provision hereafter referred to is concerned, by both urban and rural authorities) gives the local authority the same powers of making bye-laws to facilitate the work of removing house refuse, in almost precisely the same language as that quoted above in reference to metropolitan sanitary authorities. Many local authorities have availed themselves of these powers, and passed a bye-law—with the approval of the L.G.B.—in the following or similar terms:—

The occupier of any premises on which any house refuse may from time to time accumulate shall, on such days and at such hour of the day as the council shall fix and shall notify by public announcement in the district, deposit on the kerbstone or on the outer edge of the footpath immediately in front of such premises or in a conveniently accessible position on the premises, as the council may prescribe by written notice served upon the occupier, a movable receptacle in which shall be placed for the purposes of removal, by or on behalf of the council, the house refuse which has accumulated on such premises since the preceding collection by or on behalf of the council. In the case referred to above, Mr. George Biddell, a Teddington householder, summoned the Teddington Urban District Council for that it, having undertaken the removal of house refuse in pursuance of Sec. 42 of the Public Health Act, 1875, had failed, without reasonable excnse, after notice in writing from him, to remove within seven days the house refuse from his premises within the council's district. It appeared that the council had last July adopted a system of daily collection of refuse throughout the district, and to facilitate this had required occupiers of premises to provide sanitary bins, and to have these bins placed out in the forecourt of their houses at a specified time. Mr. Biddell contended, and rightly in this case, that the council, having undertaken the collection of house refuse, was bonnd to fetch these bins from their usual place and empty them regularly. The clerk to the conncil pointed out that the council was not bound to collect the refuse, and that it could rescind the previons resolution on the subject and cease to collect it forthwith, leaving the duty in each case on the occupier. After a long consultation, the magistrates decided that the council had acted unlawfnlly, and inflicted a nominal fine. At the same time, they pronounced an opinion that the council's request was reasonable. It may be pointed out, in connection with this case, that the council had not adopted the Public Health Acts Amendment Act, 1890. Had the council done this, it would have had full power, apparently, to require householders to place their dust-bins in front of their houses for collection purposes, and the summons in the case wonld have necessarily failed.

WARRINGTON INQUIRY.

TOWN COUNCIL REFUSES TO PAY THE PRINTING BILL.

THE three commissioners, Messrs. Adam Horrocks, John Pemberton, and S. Norbury Williams, who represented the burgesses at the recent Warrington "Trading" inquiry, have addressed a letter of protest to the Mayor of Warrington, because the Town Council has refused to pay the bill for printing the burgesses' commissioners' report.

"We have," they state, "read with surprise and regret the report of the proceedings of your Council at its last meeting, at which it refused to pay the bill for the printing of our report. The end has come at last, and thoroughly discreditable it is to your Council. The trading inquiry was for the whole town, and not merely for your Council, which is but a small section of it. We three represented the burgesses, the most important portion of the ratepayers. Your Council resisted the inquiry for many months, and only agreed to it at last owing to the overwhelming weight of public opinion in its favour, and the public demand which was too strong for your Council to any longer resist."

The letter concludes:—"And now your Council, which from the first resisted the inquiry, but which printed without demur or comment the report of its three commissioners, refuses to pay our printing bill! This is a paltry affair. It is a piece of calculated meanness, as it seems to us, and is worthy of a body which has played so ignominious a part for the past three years, and has earned the contempt of the public for the way in which it has defended and winked at the members of its own body who have been directly and indirectly trading with your Corporation for a long period.

"We are certainly not wishful to enter upon the undignified course of haggling about the payment of this £22 printing bill with a body which has already, without demur, expended many hundreds of pounds upon the inquiry. In order to make an end of the matter we have, therefore, ourselves paid the bill, and we desire, as commissioners, to wash our hands of any further transactions with your discredited Council."

A LADY CONTRACTOR.

NEW PROFESSION FOR WOMEN.

A NEW profession for women, that of road contractor, has appeared in Ireland.

At the last meeting of the Donegal County Council a gentleman from Strabane appeared before the Council in reference to a contract for road maintenance which had been given by the Strabane Rural District Council to a lady.

He said that a lady road contractor had never been heard of in that or any other county in Ireland, and he asked the Council to reject the proposal.

The Chairman of the Rural District Council said, in reply, that the lady was the widow of a contractor. She had the men, plant, and material for carrying on road maintenance, and he did not see how any objection could be raised, particularly as she had given security for the carrying out of the work.

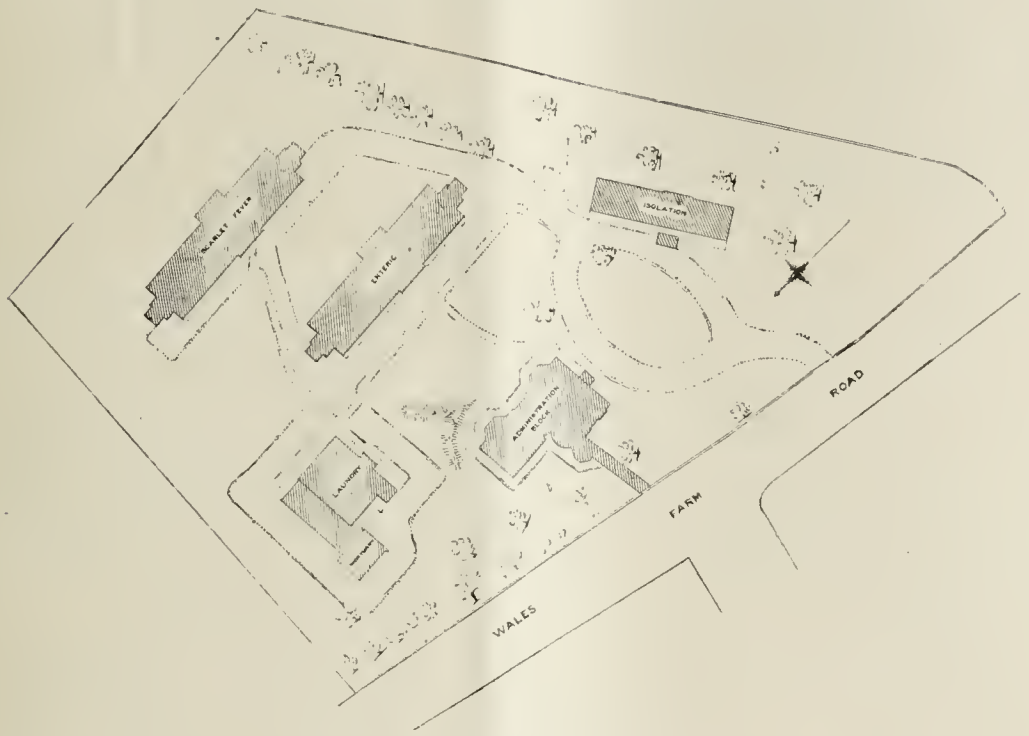
After some discussion, it was agreed to approve of the proposal.

NEW ISOLATION HOSPITAL.

The Acton Urban District Council Opens its First Isolation Hospital. The Danger of Spreading Infectious Diseases in this Great Laundry District. Transforming an Old Mansion into an Administrative Block. Description of the New Buildings.

ON Wednesday the Acton Urban District Council opened a new isolation hospital known as "The Friars," Wales Farm Road.

In a district like Acton, which has been called the Laundrydom of Greater London, it is of particular importance that the machinery for dealing with infectious diseases shonld be kept bright and efficient. There are at least 450 lanndries in the town, employing nearly 5,000 women. If any one of this great army of workers exhibits symptoms of an infectious disease the health of London is endangered by her continuing amongst her fellow-workers or at her daily occupation. Wet or drying clothes are extremely liable to catch and carry infection.



PLAN OF THE NEW BUILDINGS.

Up to this week there has only been one hospital owned by the Council available for the sick amongst the 37,000 people who form the population. This is the Acton Cottage Hospital, Gunsbury Lane, given by Mr. Passmore Edwards, and enlarged last summer. For some time past part of this institution has been used as an isolation hospital, and the remainder as an accident hospital. This is obviously an inconvenient and unsafe division, and after this week the Cottage Hospital will be used for accident cases only.

The Council purchased "The Friars," which is an old mansion, some time ago, and twelve acres of land, for the purposes of this Isolation Hospital. It converted the house into a large administrative block—much larger than is required at present; but, as the Hospital pavilions are added to, the whole of its accommodation will be gradually taken up.

At present the Council has provided two fever pavilions, each with 14 beds, and the necessary sanitary fittings, bath-rooms, nurses' room, &c. It has also provided an observation block, with two wards of two beds each, and one ward with one bed, and the necessary sanitary fittings, nurses' room, &c. The remaining block contains the steam laundry, disinfector mortuary, and coachhouses for the horsed' ambnlance and the horsed vans which convey goods to and from the disinfector.

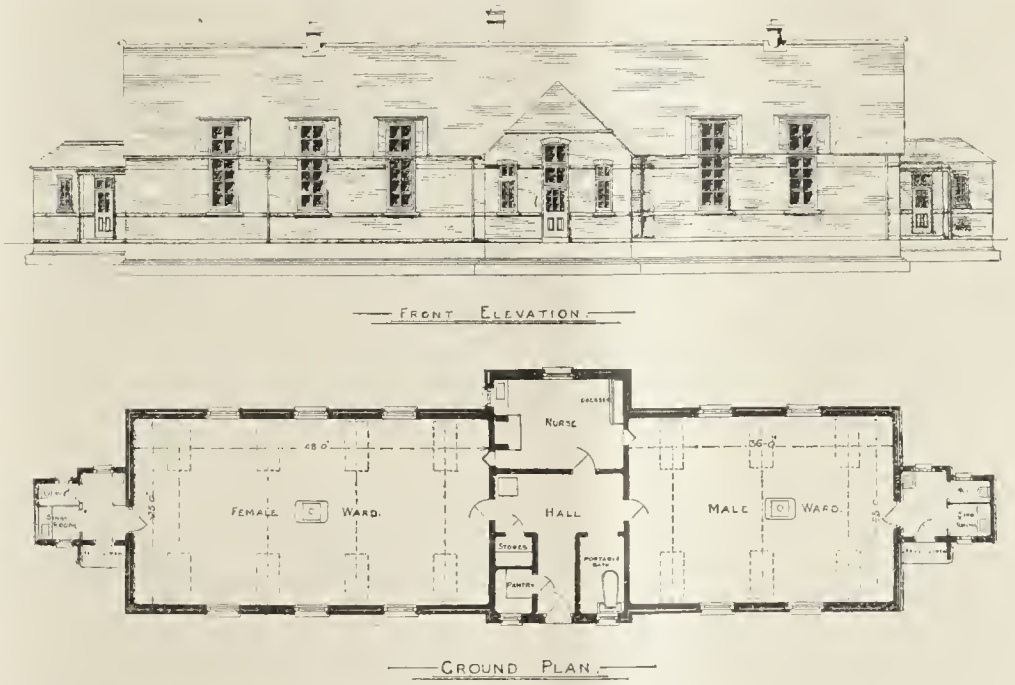
As the illustration on this page shows, there will be room for other pavilions as they may be required, and it is estimated that when the whole of the district is built over, at least 125 beds will be required in the hospital, which is provided for scarlet fever, enteric, &c., and is not to be used for small-pox—other provisions being made for cases of that kind.

In the grounds are high-pressure water mains, with hydrants, for the protection of the buildings from fire, and the grounds and the buildings are lighted by electricity from the Council's distributing works, which have just been completed and are shortly to be formally opened. The machinery in the laundry will also be worked by an electric motor.

The exterior of the buildings has a pleasing effect, being worked in stock brick with red brick dressings. The roofs are tiled and gabled. The total cost of the work, which has been carried out according to the drawings, and under the snpervision of the Council's surveyor, Mr. D. J. Ebbetts, A.R.I.B.A., will be over £13,000.

Messrs. E. Hadley and Son, Old Hill, Staffs, are the general contractors for the whole of the buildings. The wards are heated with large central stoves installed by Messrs. Rosser and Russell, Charing Cross Road. They are known as faience ward stoves, double fire, with ventilating arrangements. They are so arranged that they will burn by night or day without attention. There are no angles to harbour dust, nothing to corrode, and no cleaning required. There is no noise from dropping cinders to canse annoyance to patients, and the ashes may be removed while the fire is in action. The whole of the electrical fittings are by Messrs. Bromley, Batstone, and Kirk, of Holborn and Acton, which firm is carrying out a large number of similar works elsewhere. The electrical installation, together with Nernst lamps, has been made nnder the supervision of Mr. Trentham, Victoria Street, Westminster, who is the consulting engineer of the new generating station. Among the notable sanitary fittings are movable baths made in Doulton's specially hard white vitreous enamel. This gives a very pleasing appearance. They are arranged so that they can be moved from ward to ward, and discharge into sinks let into the floor. Special attention has been given to the sinks for cleansing bed pans, by which handling has been reduced to a minimum. These also have been supplied by Messrs. Doulton, and seem admirably constructed in every way.

Amongst other chief contracting firms are:—Laundry engineering, Messrs. Tullis and Co., 1, Southwark Bridge Road, S.W.; wood block floors, Acme Wood Flooring Company, Gainsborough Road, Victoria Park; opening gear windows, Mr. Leggott, 90-91, High Holborn; laundry steel trusses, Messrs. Handyside and Co., engineers, Derby; patent glazing, Mr. Rendle, Victoria Street, Westminster.



ADMINISTRATIVE BLOCK.

A LONDON LORD MAYOR'S STORY.

LORD MAYORS of London, as a rule, have not earned undying fame as sportsmen; but there has been at least one of these civic functionaries whose exploits will never die.

In former days it was the custom of their lordships to attend in State once a year at the Epping Forest hunt. On one such occasion the then Lord Mayor had evidently not a very clear notion as to the nature of the quarry, for he rode forth clad in a complete suit of the most up-to-date-armour of his day.

Solemnly, and with due seriousness (for in those days a Lord Mayor was somebody, and a dangerous customer to offend), the cavalcade was arranged, with the great man in the best position to see all that went on.

"The hare comes this way, my lord," soon exclaimed one of the servants. His lordship thereupon, pale but brave, drew his sword and heroically declaimed, "Let him come! I thank my God I fear him not!"

AT St. Helens Town Hall last week the new Chief Constable (Mr. A. R. Ellerington) was sworn in. The mayor, who, with five other magistrates, was present, extended a cordial welcome to Mr. Ellerington, who, in return, assured the bench that he would use his utmost endeavours to carry out his duties.

Official Advertisements.

BOROUGH OF SOUTHEND-ON-SEA.

TRAMWAY PASSENGER TICKETS.

THE Corporation invite TENDERS for the privilege of ADVERTISING on the Backs of 5,000,000 Tramway Passenger Tickets required during the year ending 31st March, 1906, or any portion of that number not less than 500,000.

Specimens of Tickets may be seen and full particulars obtained at the Office of the Borough Accountant. Municipal Buildings, Clarence Road. Southend-on-Sea.

Tenders, marked "Advertising on Tickets," must reach the Borough Accountant not later than Wednesday. the 8th February next.

By order.
WILLIAM H. SNOW,
Town Clerk.

Southend-on-Sea.
17th January, 1905.

COUNTY BOROUGH OF WEST HAM.

TENDERS FOR SUPPLIES, &c.

THE Council hereby invite TENDERS for the SUPPLY of
Paving Materials,
Broken Granite and Chippings,
Road Flints,
Tar and Pitch.
Ironmongery, &c.,
Iron Castings.
Chalk, Plaster, Slates, Lime, &c.,
Portland Cement,
Rope and Tarpaulins, &c.,
Hardwood,
House Steam Coal and Coke,
Coal for Pumping Station,
Lead, Zinc, Glass, and Plumbers' Requisites.
Oils, Colours, Painters' Brushes.
Stoneware Pipes, &c.,
Brooms and Brushes,
Charcoal Baskets. Sieves. &c.,
Boots,
Sanitary Articles,
Domestic Articles,
Winding Clocks.

Forms of tender and further particulars may be obtained at the Borough Engineer's Office, Town Hall, Stratford, E.. upon the payment of One Pound for each form of tender, which will be returned upon the receipt of a bona-fide tender.

For the SUPPLY of
Engine Room Stores,
Cable,
Integrating Wattmeters,
Double-Pole House Cut-Out Boxes,
Transformers,
Incandescent Lamps,
Coal.

Forms of tender and further particulars may be obtained, after the 26th inst., at the Borough Electrical Engineer's Office, Central Electricity Station, Tucker Street. Canning Town, upon the payment of One Pound for each form of tender, which will be returned upon the receipt of a bona-fide tender.

For the SUPPLY of
Books,
Printing and Stationery.

Forms of tender and further particulars may be obtained, after the 31st instant (returnable on February 23rd), on application at the Office of the Borough Treasurer, Town Hall. West Ham, upon the payment of One Pound for each form of tender, which will be returned on receipt of a bona-fide tender.

For the SUPPLY of
Newspapers and Periodicals,
New Books, and for
Bookbinding
For the Public Libraries and Technical Institute.

Forms of tender and further particulars may be obtained at the Central Public Library, Water Lane, Stratford ; or the Branch Library. Barking Road. Canning Town, E.

For the SUPPLY of
Meat,
Bread and Flour,
Groceries,
Linen and Cotton Goods, &c.,
For use in the Council's Hospitals.

Forms of tender and further particulars may be obtained of the Medical Superintendent at the Hospital, Samson Street. Plaistow.

Tenders for the whole of the contracts (except Books, Printing, and Stationery) to be enclosed in endorsed envelopes supplied with the forms, and sent to my office not later than 4 o'clock on Thursday, February 9th, 1905.

The tenders will be opened at the Town Hall, West Ham, on Friday, February 10th, 1905, at 3 p.m., and persons tendering may be present if they so desire, but no guarantee is given that any information, beyond the names of persons tendering, will be read out.

The Council do not bind themselves to accept the lowest or any tender. The contractor will be required to enter into a bond with sureties for the due performance of the contract, and no Goods, Materials, &c., will be ordered under any contract until such bond has been duly executed.

The contractor whose tender is accepted, and with whom a contract is entered into, will be required to pay to the whole of his workmen such rate of wages, and observe such hours of labour, as are recognised by the Workmen's Trade Unions and in force at the time of signing the contract. In the event of any breach of such agreement the Council will enforce the penalty clause in its entirety.

By order of the Council.
FRED. E. HILLEARY,
Town Clerk.
Town Hall,
West Ham. E.
January 21st, 1905.

HAMMERSMITH BOROUGH COUNCIL.

ANNUAL CONTRACTS.

THE Borough Council invites TENDERS for SUPPLYING Goods and carrying out Works respectively, as follow, viz. :—

1. Printed Books and Forms.
2. Stationery and Account Books.
3. House Coal and Gas Coke.
4. Broken Granite and Flints.
4a. Hoggin. Ballast and Sand.
5. Lime and Cement.
6. Drain Pipes.
7. Jobbing Works, Masonry, &c.
8. General Stores. Tools, and Implements.
9. Brooms. Brushes, &c.
10. Stable Goods and Utensils.
11. Timber.
12. Oilman's Goods.
13. Hiring of Horses and Men.
14. Tyreing Wheels.
15. Disinfectants.
16. Window Cleaning.
17. Electrical Stores.
18. Electrical Meters.
19. Steam Coal.
20. Bookbinding.

All for the period of Twelve Months ending March 31st, 1906.

The whole of the above-mentioned requirements or works to be supplied, carried out, and performed according to the terms and conditions of the several specifications accompanying the several forms of tender.

The several specifications may be seen, and forms of tender and any further information obtained, on application at the Town Hall, in respect of Contracts Nos. 1, 2, and 16, to the undersigned ; in respect of contracts Nos. 3 to 15, inclusive, to Mr. H. Mair, Borough Surveyor ; in respect of contracts Nos. 17, 18, and 19, to Mr. G. Gilbert Bell, Electrical Engineer, at the Electricity Works, 85, Fulham Palace Road, Hammersmith : and in respect of No. 20, to Mr. S. Martin, Ravenscourt Park Library, between 9 and 5 o'clock daily, Saturdays 9 to 1.

Tenders may be made on printed forms provided by the Council, and must be delivered to the undersigned, not later than 4 p.m. on Wednesday, February 8th, 1905.

The Council does not bind itself to accept the lowest or any tender.

H. THOMPSON.
Town Clerk.
Town Hall. Hammersmith.

BIRKBECK BANK

ESTABLISHED 1851.

2½ per cent. INTEREST
allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST
allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.
STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary,
Sonthampton Buildings, High Holborn, W.C.

WEST HAM UNION.

APPOINTMENT OF MASTER AND MATRON.

THE Guardians invite Applications for the Appointment of MASTER and MATRON of their Workhouse (and its branches), situate at Union Road, Leytonstone, N.E. Salary £200 and £100 per annum respectively, with the usual residential allowances.

Forms of application will be forwarded on request, and copies of three testimonials of recent date only are to be inserted in the forms, which must be sent to me by Thursday, the 2nd February, 1905, at 10 a.m.

Canvassing the Guardians is strictly prohibited.

By order of the Board.
FRED. E. HILLEARY,
Clerk.

Clerk's Office,
Union Workhouse, Leytonstone, N.E.
19th January, 1905.

HAMMERSMITH BOROUGH COUNCIL.

CEMETERY SUPERINTENDENT.

THE Borough Council invites applications for the appointment of CEMETERY SUPERINTENDENT, at a salary of £100 per annum, with house, fuel, and light.

Candidates must not be less than 30 nor more than 50 years of age.

Applications to be made on the form which, with particulars of duties, may be obtained from my Office, and, accompanied by copies of not more than three recent testimonials, to be delivered to me not later than noon on Thursday, January 26th, 1905.

Selected candidates will receive due notice when to attend.

Personal canvassing will disqualify.

H. THOMPSON,
Town Clerk.
Town Hall, Hammersmith.

CLEAR WATER. — To be SOLD cheap, Bell's Improved Water Filter. Capacity 18,000 gallons per hour. Perfect order and condition. and can be seen working. Jas. Smith and Sons, Calder Wharfe Dyeworks, Dewsbury.

Third Impression of Third Edition of "RED CODE," 1904. Fully Revised. Complete, up-to-date Edition of Code and other documents for Schools under Parts II. and III. of Education Act, 1902.

1s. net. Post free 1s. 3d., from Educational Supply Association, Ltd. 42a, Holborn Viaduct, London, E.C.

TEMPERANCE PERMANENT
BUILDING SOCIETY,
4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS
For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years.
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager.

A HISTORY OF THE ENGLISH POOR LAW. . .

A RE-ISSUE OF
A STANDARD WORK
AT ONE-THIRD OF
THE ORIGINAL PRICE.

Vols. I. & II. NICHOLLS. 10s. 6d. net.

Vol. III. MACKAY. 7s. 6d. net.

Or the 3 vols. complete,

15s. net.

P. S. KING & SON,

ORCHARD HOUSE, WESTMINSTER.

EATON & KNAPP,

BOILER SETTERS & FURNACE BUILDERS,

Repairs in Boiler Brickwork & Dust Destructors of all kinds.

ESTIMATES FREE.

23, CLACTON ROAD, WALTHAMSTOW.

WANTED, Appointment as Storekeeper, &c. (or Assistant) to Public Institution. Abstainer. Age 30. Nichols, Regent Street, Leighton Buzzard.

SHOEMAKER, or other capacity. Good testimonials. Experienced. Good wages. Apply G. C. A., MUNICIPAL JOURNAL Office, 12, Salisbury Square, E.C.

The Cream of Cocoas.

EPPS'S

Contains all the nutriment

COCOA

of the Choicest Nibs.

MUNICIPAL JOURNAL

FRIDAY, JANUARY 20, 1905.

NOTES AND COMMENTS.

Telephone Tactics.

APPARENTLY the mantle of the *Manchester Courier* has fallen upon the *Western Mail*. Since the former influential organ of public opinion was acquired by the Great Amalgamator it has contained none of those ingenious "special" articles from "special" correspondents who are serving the interests of the Industrial Freedom League and its constituent companies. The new editor is not quite so simple, and whatever criticism of municipal enterprise appears in the *Courier* now will probably be worthy of attention. The *Western Mail*, however, is eager to take the place of the *Manchester Courier*. But it need not have gone out of its way to attack, through the familiar "Correspondent," municipal telephones now that those useful and highly efficient services are in danger of being absorbed by a Government that is anxious to do the best it can for its friends the directors and shareholders of the National Telephone Company before it goes out of office. Not that there is anything in the criticism of the *Western Mail*'s correspondent. All other things being equal, the English public is not going to give up municipal telephones because our Cardiff contemporary talks in this irresponsible fashion:—

> The fact is that the very "cheapness" (of the municipal telephone) is illusory. It is the cheapness of the jerry-built house, of the brown-paper shoes, of the shoddy suit, cheapness that means a big bill later on for the ratepayers. Sir William Preece, than whom there is no one more eminent or independent as an expert, declared that the low figure quoted in a cheap telephone estimate—£19—must be "for something very cheap and nasty," and the trouble will only begin when the Post Office engineers come to appraise the elderly plant that does duty for up-to-date equipment in some municipalities.

We invite the editor of the *Western Mail* to take a trip to Brighton and compare the telephonic facilities of the Corporation with those of the company. If he will only do so he will blush every time he remembers that he once allowed such an absurd statement as that we have quoted to appear in his paper. It is, of course, to the interests of private speculators and others to decry cheap telephones, because they mean less profits, and, perhaps, smaller fees. But the public want cheap telephones, and as the municipalities have demonstrated their ability to provide them, they should be allowed to do so. The question of efficiency can be easily tested, and we hope the editor of the *Western Mail* will accept our invitation.

Municipalisation at Paris.

IT is reported that Paris is about to municipalise its gas, "electrical," and omnibus services. *Commercial Intelligence* tells us that the subject is causing considerable anxiety in industrial and commercial circles, which we can well believe. In a very short time all the concessions for the exploitation of the services named will expire:—

> The majority of the present Municipal Council is distinctly Socialist, and proposals are already before the Council to substitute municipal exploitation for private enterprise. All is doubt and uncertainty. For the last six months there has been a veritable slump in the electrical appliances trade. The present concessionaires for the supply of electric light and power have become scared. They have exploited the better part, the most profitable part, of their respective concessions, but whole districts which might have yielded a good return have been left severely alone. This has caused a most profound depression in the trade—a trade whose very existence depends on "push" and enterprise.

The contributor to *Commercial Intelligence* is refreshingly candid. "Whole districts which might have yielded a good return have been left severely alone." This is the usual company policy—policy that, even from the standpoint of private interests, is narrow and short-sighted. The Omnibus Company's concession expires in five years, and the company in the meantime is building no more omnibuses. The companies cannot, of course, be blamed for waiting now. As the correspondent says, "They have exploited the better part, the most profitable part;" and it is perhaps only natural that the residents of Paris, who do not happen to live in that part, should feel aggrieved. The same experience has been had in London, and, indeed, throughout the whole of this country. The companies usually go for the "better" parts; the others are left to take care of themselves.

London Tramways.

A CORRESPONDENT has written asking us whether it is a fact that the London County Council is "complaining" because the omnibus companies are running, and are about to run, "motors." We do not think it is a fact, but we gather from our correspondent's letter that there is something in his question that does not appear on the surface. Our correspondent really wishes to raise the subject of whether motor omnibuses are likely to affect the London County Council tramway receipts. Our reply is: "Certainly not, provided that the County Council possesses the same facilities for running its tramways as the companies possess in regard to their 'buses." The County Council, for instance, cannot be expected to provide so satisfactory a tramway service as the companies do 'bus services if it is compelled to stop at Westminster Bridge while the companies are able to run over it. Let us have as many and as efficient travelling facilities as it is possible to get, but do not allow the omnibus traffic to be favoured at the expense of the tramway traffic. We are only just beginning to deal with the traffic problem in London, and under these circumstances we do not think the apprehensions of our correspondent are justified. The County Council's cars will always find passengers, and the Council itself might do worse than establish motor 'bus services along thoroughfares which are unsuitable for tramways. Like the electricity concessionaires at Paris, companies will only tap the most profitable parts of a city, leaving all the others neglected. We should not advocate the County Council going into the 'bus business if existing agencies performed their duties satisfactorily. But they do not. They have postponed the introduction of motor traction until the latest possible moment; they have condemned their passengers to stuffy and uncomfortable vehicles until sheer financial necessity has made them look about for new designs; and they have neglected to take advantage of splendid opportunities for opening up new lines of communication. On the top of all these sins, they have harrassed the London County Council in its efforts to improve the existing state of affairs. London has nothing to thank the 'bus companies for, and it will be well advised to study its own convenience, and not their interests.

Liverpool and Federation.

SO far as the Liverpool City Council is concerned, the Mersey Federation scheme is dropped for the present. The Council, on Wednesday, by 50 votes to 41, defeated the following recommendation from the Special Parliamentary Committee:—

> That the committee, being of opinion that it might be to the mutual advantage of the city of Liverpool and the boroughs of Bootle and Birkenhead, and the adjacent districts, if they could be federated for local government purposes, recommend the Council to authorise the committee to confer with the councils of such boroughs and districts, with the view of ascertaining whether they would be willing to co-operate in formulating a scheme for the purpose, and report the result to the Council.

The vote, as will be seen, was an exceedingly close one, and in the interests of all parties concerned we hope that an early effort will be made to rescind it.

Municipal Trading Relieves Rates.

THE Association of Municipal Corporations ought to pass a hearty vote of thanks to the borough treasurer of Preston for his "Trading and Rates" return, which has silenced for the time being the Industrial Freedom League, and made the Liberty and Property Defence League a laughing stock. Mr. R. N. McDougall, of the latter organisation, is still writing letters to the newspapers attempting to prove that income is expenditure. We do not think it necessary to again expose the hollowness of Mr. McDougall's contentions, as we are sure no thinking ratepayer is deluded by his special pleading on behalf of vested interests. Mr. McDougall winds up his letter with the following peroration:—

> It sometimes happens in private affairs that the consciousness of an independent income leads to extravagance and insolvency; that the youth with his own living to get passes in the race of life another favoured by indulgent relatives.
>
> And if this is sometimes so in private life, where people spend their own money and manage their own affairs, can we expect anything very different as a general rule in the case of town councillors, who spend other people's money, who, owing to the system of election, have no continuous responsibility, and are elected not so much because of their business capacity as because of their wealth, their power of speech, their religion, or their politics.

The best comment upon this verbiage is that if Mr. McDougall had his way he would substitute for the present "system of election" one in which property, and not the person, would be the basis of the vote That may be good policy for the Liberty and Property Defence League, which represents property, but it is no use for the general body of citizens. The Liberty and Property Defence League cannot be blamed for promulgating its peculiar principles, but the general body of citizens would be worse than foolish if they listened to them. A hundred years ago the League might have had a chance; to-day it is merely the remuant of a worn-out political ecouomy.

Municipal Borrowings.

MR. J. M. FELLS has been giving his views on the subject of muuicipal savings banks, to which we referred last week in reference to the report from the Bury Borough Treasurer. Mr. Fells should know something of what he is talking, and his opinions are entitled to a hearing. Incidentally Mr. Fells points out that "the *Municipal Journal*, which usually views the speculative experiments of municipalities with the utmost complacency, evidently regards with some little auxiety the latest iucursion into the domain of commerce. 'We have previously pointed out,' it states, 'that the great drawback of municipal savings bank schemes up to the present has beeu that they do not provide for the consequences of a run of withdrawals,' but suggests that this difficulty could be overcome by making the bonds or securities 'payable to bearer,' and thus negotiable." Mr. Fells is quite accurate in his statement of our case, but he should readily see that our position is not one of opposition to municipal savings banks, but that, on the contrary, we favour the development of the system in a new direction. If the bonds or securities were made "payable to bearer" all the difficulties and objections to the plan would in our opinion disappear. Liverpool is applying for powers to carry out this suggestion, which, as a correspoudent points out, has already been adopted at Glasgow.

OUR PRIZE ESSAY.

Several Candidates in our Prize Essay Competition have written this week asking when the awards are to be announced. Their anxiety is natural, and we have pleasure in stating that the publication of the results will not be delayed for more than a week or two. But the gentlemen who so kindly consented to act as adjudicators are having a very difficult task. Fifteen of the papers are of a very high order of merit and there are only three prizes. The fifteen were this week reduced to five, and it is hoped to arrive at the final decision this (Friday) evening. It is possible, however, that Sir Albert Rollit's opinion as umpire may have to be obtained.

Mr. Fells' Objections.

MR. FELLS' objections to municipal savings banks caunot fail to be interesting. He says:—

> If many of the local authorities add to their trading undertakings by establishing municipal savings banks, and offer to depositors a high rate of interest, their incursion into the domain of banking must inevitably result in competition between the State and the municipalities, and in depleting the accumulated deposits at the Post Office Savings Banks. This would react to the disadvantage of those municipalities which continued to borrow from the Public Works Loan Commissioners. Already the Treasury has been obliged to make an all-round advance in the rates which the Commissioners charge, and the Chancellor of the Exchequer, in his Budget speech last April, declared that "the State cannot continue to provide money with as lavish a hand as, in recent years, now that money is dear, and the savings banks no longer afford us as large resources as formerly."

We do not think Mr. Fells in this paragraph produces any cogent reason for the abolition of the small municipal loans system. He has yet to show that competition with the State, or the depletion of the accumulated deposits in the Post Office, would be to the disadvantage either of the State or the depositor. As to the latter, we know it would not be, as the rate of interest is usually higher, and the security just as good. The advance in the rate of interest on loans granted by the Public Works Loan Commissioners was not caused by municipal borrowing, as Mr. Fells well knows, but by the general tightness of the Money Market. Mr. Fells further says:—

> But this is not the only serious aspect. The smaller the deposits at the banks become, the less money bankers will have to advance to their customers for ordinary commercial enterprises, and the higher the rate of interest traders will have to pay for their advances. The easy flow of capital, which is the life-blood of commerce, will be checked, and trade, as carried on by individual ratepayers, will suffer accordingly.

An economic fallacy underlies this contention. If the money is used for public works which, in other circumstances, would have been carried out by private enterprise, it will not be needed by the "commercial interests." In other words, these works have only to be done once, and if they are performed by the muuicipal authorities they will not be carried out by private traders. But the money is spent in either case, so that "the easy flow of capital, which is the life-blood of commerce," will not be checked. It will simply flow, as we think, in healthier channels.

A Parable.

THE correspoudent who wrote us regarding our criticisms of Sir Robert Giffen's article in the *Contemporary Review* replies to our comments upon his letter with a parable illustrating, in his opinion, "the way local government is mainly carried on now." He likens it to the sad case of a certain ruler of the people:—

> The ruler said to a body of poor thrifty men, "come with me to the tailor, and I will have made for you all new suits of clothes of the best black cloth, lined with silk and finished with the best trimmings. Don't worry about payment. You will have to pay the bill, but I can arrange a loan. Let us sup together and be of a light heart." But the poor thrifty men made answer, "Good master, it sounds good, *but as we have to pay*, and as we are only poor, we cannot afford such extravagance. We pray you, study the weight of our purse for we are poor, and the burden will be heavy, and we would abide in the ways of plainness and thrift."

The parable is very interesting, and we should like to meet the plain and thrifty men who would refuse so handsome an offer from so accommodating a ruler. But the illustration does not really represent the position. What occurs is this. These plain and thrifty men themselves elect their ruler, called a Government, which says that the plain and thrifty men are to wear clothes of a certain cut, colour, and substance. But in order that the clothes shall suit their means, the Government tells the plain aud thrifty men to choose from their number a body of delegates or deputies, whose duty it is to see that the plain and thrifty men's desires are carried out within the limits already imposed by the superior authority. The plain aud thrifty men have the opportunity—in the provinces every year, and in London every three years—of dispensing with delegates who do uot perform their duties satisfactorily. They also have the opportunity of periodically changing their ruler, and consequently their liues of general policy, if they so desire. If they change none of these bodies they have no logical right to grumble when the bill comes in. This, as our correspondeut will see, is a very different position to that represented by his parable, where the ruler is assumed to be irremovable. We are afraid that our correspondeut has been listeniug to the arguments of companies of those "plain and thrifty" men who say that if the work of making these clothes were only taken away from municipal authorities and given to them (the compauies), they would be able to perform it so much better and cheaper. But that way has been tried and found wanting.

Cheap Electricity.

OUR coutemporary, *Everyday Electricity*, is not satisfied with our answer to its defence of the Yorkshire Electric Power Company. We did not expect that it would be. The paper says that "To state that the 'Yorkshire Power Company is preventing public bodies from running a public service in the public interests' proves nothing at all. As it stands, it is merely the jargon of a party which has blindly pledged itself to support any aud every municipal project on the principle that 'the King can do no wrong.'" *Everyday Electricity* has not done us the honour of reading our note carefully. We not only made the statement referred to, but we proved it from the speech of the chairman of the company himself, which is quite a different matter. As to the denial of the paper that municipal bodies do not supply electricity cheaper than companies, we can only refer to the official figures, which prove that they do.

POOR LAW OUTLOOK.

Our Inflexible Poor Law System and Chorlton's Abortive Attempt to Introduce Change. The Need for Combination in Dealing with the Unemployed. Movement in Several Cities, and an Encouragement from Mr. Charles Booth. Starving Edmonton and the Well-Paid Clerk to the Union. Serious Allegation at Tendring.

Poor Law and its Present Needs.

THE Chorlton Board of Guardians has been unsnccessful in its appeal to the Local Government Board to relax the requirements of Article 10 of the Outdoor Relief Regulation Order, so that it conld deal more readily with the able-bodied poor seeking aid without the infliction of a labour test. In the fifty-two years that have elapsed since Article 10 was issned considerable changes have taken place in the general conditions of the life of the poorer classes and in the qualification for the office of a guardian. The Chorlton Guardians therefore considered that the time had come for a full revision of the Orders of the Local Government Board, so that guardians might possess the power to deal with the poor who sought their aid in a manner in keeping with the spirit of the present age. They also expressed the view that it was unreasonable to require a report to be sent to London of every case in which relief (neither sudden nor urgent) was granted to able-bodied poor without the infliction of a labour test. Though anything that makes for indiscriminate relief is bad, there is a growing discontent to-day among Poor Law reformers with the inflexible nature of our English Poor Law system. We need a more classified system of relief snch as Denmark adopted a few years ago with such striking results.

❦ ❦ ❦

Central Committee and Fulham.

SOME stringent criticisms on the work of Mr. Long's Central Committee on the unemployed were recently passed by Battersea. Fulham has now found voice, but not the voice of censure. At the last meeting of the Board of Guardians a report of a special committee on the qnestion of the unemployed was presented. It was to the effect that the committee agreed that, in the event of able-bodied men requiring relief, the Relief Committee should be recommended to divide applicants into three classes—viz.: (1) single men; (2) married men of good character; (3) married men of indifferent character. The first class is to be offered the workhouse; the second class is to be first referred to the Borongh Council for work, or failing the Council, the Central Committee of the London Unemployed Fund, and failing this, to be relieved by the guardians according to necessity, but for the present, withont setting them to work; sanction to the expenditure on this class to be obtained from the Local Government Board at the close of the half-year. The third class to be relieved by the guardians according to necessities, but men required to work (break stone) whilst receiving relief.

❦ ❦ ❦

Comparison with other Boroughs.

IT appears that up to the present 30 Fulham men have been set to work by the Central Committee, and it is expected that employment will be found for 39 other men. The chairman of the Fulham Board of Guardians (the Rev. P. S. G. Propert, M.A.), one of the stalwart Poor Law statesmen, said this number was a very good proportion of the total number dealt with. Fulham, compared with other boroughs, had been very well treated. But Mr. Propert fears that the labours of the committee will not be so satisfactory as it wishes. The committee has already got through nearly £22,000, money which had been expended to provide work—not relief given in money—for a large number of London's unemployed. It is plain that the £42,000, the amount for disposal, will soon be swallowed up.

Schemes for Emigrating State Children.

MR. KINLOCK COOKE'S scheme for emigrating State children to South Africa and to other countries, outlined some time ago in our columns, has got the support of the Wandsworth Guardians. At the last meeting of the board it was resolved that the guardians are in favour of the emigration of children to the colonies under the auspices of an officially recognised committee, rather than, as at present, under the care of charitable agencies, and to their being empowered to contribute towards the support of snch children in training homes in the colonies. Meanwhile, Mrs. Close's scheme for emigrating children to Canada is being matured. There is to be a Mansion House meeting at the end of this month, at which the scheme will be definitely put before the conntry.

❦ ❦ ❦

Social Reform and the S.A.

WE know from the correspondence which took place in the *Times* last October and November that the Charity Organisation Society is not in love with the social methods of the Salvation Army. It thinks indeed that the S.A. night shelters do more harm than good. Not so Mr. Charles Booth. The great social worker and author of "Life and Labour of the People of London" has now declared himself by sending a donation of £250 to the Salvation Army's relief fund. He also expresses his confidence in the administration of the Salvation Army in so many words.

❦ ❦ ❦

The Great Need for Co-operation.

THE advice he gives the Salvation Army in sending this draft is that which has been expressed more than once in these columns, and cannot be urged too strongly. He would he says:—

> Only urge upon you the pressing importance, in this matter of lack of employment, of co-operation with other charitable agencies—including, of course, the Poor Law. The existing circumstances offer an opportunity in this direction, which I trust may not be let slip. Distress, which springs from widespread lack of employment, cannot, I feel, be successfully dealt with except in combination, and the organisation now provided by the action of the Local Government Board seems to me to establish a system which may be generally accepted, and which would be gradually perfected in use.

Widespread evils require widespread remedies. Mr. Charles Booth has also this week enclosed a draft for £250 to the Church Army, with a similar message urging the need of combination.

❦ ❦ ❦

Movements towards Centralisation.

OTHER large cities besides London are waking up to the advantages of co-operation and centralisation in dealing with the unemployed. Last week we spoke of the action of the various local authorities in and around Glasgow, and since that time Manchester has taken an important step in the formation of an executive committee, which includes members of all political parties. This committee is empowered to draft a Parliamentary Bill for the purpose of establishing labour bureaux to be administered by local authorities, and otherwise to make provision for dealing with the unemployed problem. The city surveyor of Manchester (Mr. T. de Courcy Meade), in a report on the progress of the works started for the relief of the unemployed by the City Council, states that employment is being found for about 412 men each day. He says that the cost of some of the works is excessive, but he believes that much depends upon the intelligence and ability of the gangers who supervise the work. This is true also of work in labour colonies.

Lancashire and Labour Colonies.

BOLTON also gives signs of moving in the direction of the establishment of labour colonies. We understand from official sources that the guardians of the union have decided to convene a conference of the guardians of the Blackburn, Bury, Chorley, Haslingden, Leigh, and Wigan unions to consider an offer made by Mr. Joseph Fels of a loan, for three years, of a quantity of land for a labour colony. The conference is fixed for the 3rd of February next. Mr. Fels' offer is on the same lines as the one he made to, and was accepted by, the Poplar Union. Mr. Fels has promised to attend the conference. Latest reports from the Poplar Labour Colony at Laindon show that work is going on steadily, and that there is little or no insubordination or desire to "shirk."

❦ ❦ ❦

A Contrast.

A SPECIAL appeal is issued on behalf of Edmonton. This points out that Edmonton is entirely an ill-paid working-class district, a nursery and school for the children of, and dormitory for, London workers, and when loss of employment, illness, or old age overtakes them they can only rely upon the charities or poor rate of a district whose resources are already strained to breaking point. It is impossible to suppress the thought in reading this appeal of how the Edmonton Union is spending its money. The clerical staff is costing the poor ratepayers a "fine penny." Mr. F. Shelton is getting £1,050 per annum as clerk to the Board, to include some assistants; £150 for assessment work; £450 as clerk to the Assessment Committee; £350 as superintendent registrar; and £25 as returning officer's fees at guardians' election. This makes a grand total of £2,025 per annum, on the whole of which he will get superannuation. In addition to this, the guardians recently decided to pay a first assistant clerk not less than £170, and a second assistant clerk not less than £120 per annum. These figures carry their own conclusion.

❦ ❦ ❦

Poorest in England.

DESPITE all this, one of the members of the Edmonton Board of Guardians, at its last meeting, said that no one could name any district in England to-day that would be found to be poorer than Edmonton. He said he had mentioned the cases of several families where the children had been crying with cold and hunger until he called the attention of the relieving officer to them, and there was hardly a bit of furniture in the houses. In one case the father became an inmate of the house on the morning and the mother gave birth to her ninth child in the evening. He had a list of 283 men out of work with 883 children depending upon them. From this appeal, which is put forward by the Edmonton Urban District Council Special Relief Committee, we learn that it is estimated that at least 3,000 men are to-day out of work out of a population of only 12,000 adult males. A considerable number of these are not of the unemployable class, but were last year regular workers in London, and yet in times of distress they are excluded from all forms of relief. Locally, as much as possible has been done, and the Urban District Council has just formed, with representatives of all religious bodies, trade union societies, Socialists and unemployed committees, one large committee, which meets daily at the Town Hall. Tottenham, we know, is no better, or even worse, and it has been asserted that there are there to-day no less than 25,000 starving. This, no doubt, is exaggerated, but the amount of distress is certainly lamentably great.

❦ ❦ ❦

Serious Charges.

SOME very serious allegations have been made against the administration of relief in the Tendring Union. They are to the effect that a distressing case remained unrelieved for a considerable time after being brought under the notice of the relieving officer and overseers. To make the position clear, the words of Miss Lock, of St. Albans Road, Clacton-on-Sea, to

the President of the Local Government Board shall be given:—

> The man had an abscess, and was covered with sores (caused through lack of nourishment), and the discharge from which the doctor said was contagious, and therefore dangerous to the wife and five children. The man has been removed to-day (Sunday) within 48 hours after my letter appeared in print, although the wife had been given to understand by the relieving officer a fortnight ago that no relief whatever could be given them until next Thursday (the day after the Board of Guardians meeting at Tendring).

This, if true, is red tape of the very worst kind. But that appears not to be all. When this poor overburdened wife first went to the relieving officer with the order she had absolutely nothing in the house, and she and her husband were starving. Now, English Poor Laws have many critics, but it has always been held a fundamental tenet that no one shall starve. And yet, if the statements be true. this man and his wife obtained no relief.

Overworked Relieving Officer.

FROM the internal evidence of this letter to the President of the Local Government Board, it would seem that the couple were in this condition for a good many days, though how bodies and souls were kept together does not appear. At last the princely allowance of 4s. 6d.—presumably per week—was given, but only "after two of the overseers had, at my request, written to the relieving officer." The writer of the letter apparently does not wish to be hard on the official, for—

> I am told the officer has a large district, and only visits Clacton every Thursday for a few hours, in spite of the large amount Clacton contributes to the poor rate. If he is unable to give more time here surely he should have assistance given him.

Taking these allegations as true, what a splendid case is made out for strong relieving staffs. We have more than once pointed ont that money spent in this direction is more than money saved.

A "Starving Family."

BUT a second case almost as distressing is brought before the notice of the Local Government Board. The husband of Mrs. —— ran away from her seven months ago leaving her with five children, the eldest a girl of 14 years—

> Until lately she has managed to keep them clothed and fed (with the help of her mother, who is a nurse), but says they are starving now. The woman herself looks very bad indeed. She has been to the relieving officer twice, but he has granted her no relief, but told her that she must go to the police-station and get an order for her husband's arrest (which may mean some time, as nobody knows his whereabouts).

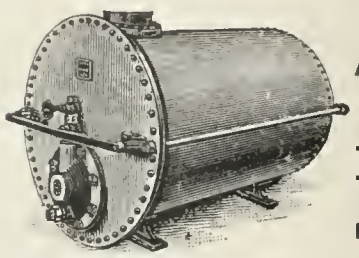
It is impossible for an outsider to judge the merits of the cases, but it appears that at the last meeting of the Board the almost unanimous opinion of the guardians present was that there was really no substantial basis for the allegations made.

HEATING OF BUILDINGS & HOT WATER SUPPLY

FROM LIVE OR EXHAUST STEAM.

The Latest and Best Appliance is

ROW'S PATENT CALORIFIER



Storage Calorifier for Baths.

Combined with AUTOMATIC STEAM CONTROL (Royles' Patent)

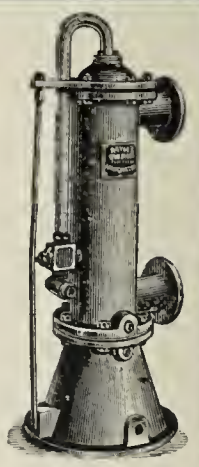
Adopted by the Metropolitan Asylums Board, London County Council, Manchester, Liverpool, Glasgow, Edinburgh Corporations, and others, for Bath Supply.

COPIOUS SUPPLY, UNIFORM TEMPERATURE.

ROYLES LIMITED, IRLAM, near Manchester.

ALSO MANUFACTURERS OF

Feed Water Heaters, Condensers, Evaporators, Steam and Gas Kettles, Syphonia Steam Traps, Reducing Valves, Oil Separators, Exhaust Heads, Boiler Mountings, &c., &c. Price and full particulars on application.



Vertical Calorifier for Hot Water Circulatiou.

DIALITE

THE STANDARD CABLE FOR ALL PURPOSES.

THE ST. HELENS CABLE CO., Ltd., WARRINGTON.

IN PREPARATION.

Demy 8vo., cloth gilt, 3s. 6d. Post free, 3s. 11d.

THE MUNICIPAL YEAR BOOK For 1905.

COMPLETELY REVISED.

The new issue has been brought UP-TO-DATE

AND CONTAINS

MANY NEW FEATURES.

It is undoubtedly the

MOST VALUABLE MUNICIPAL WORK of REFERENCE published.

Comprising a Budget of information on municipal matters not elsewhere available.

*** *Full particulars, with specimen pages, will be sent on application to the Manager.*

LONDON: EDWARD LLOYD, Limited, 12, SALISBURY SQ., E.C.

ELECTRICITY SUPPLY.

Lessons on the Bradford Breakdown and the Necessity for Periodical Testing. Where Fuses can be Safely Fixed. Comments on the Board of Trade's Report. A Year's Work at Chester and Bury. The Electrical Profession and Public Bodies as Masters.

THE electricity accounts of the county borough of Bury are among those which do not leave much room for criticism, except, perhaps, the absence of a reserve fund may be the subject for some adverse comment. The results from a technical point of view are a credit to the management of the committee and the skill of their technical adviser. The revenue account includes amongst the items of expenditure bank interest and bad debts. The former we have extracted and included in the sums usually presented in the nett revenue account, and the latter in the second and third statements below have been deducted from the receipts and excluded from the costs. The accounts show that for the year ended the 31st of March last:—

The revenue derived from sales of current, &c., amounted to	£8,105
And the working expenditure to	3,857
Leaving a gross profit of	£4,268
Out of this sum the following requirements were met:—	
Interest on mortgage debt... ... .. £1,464	
Bank interest 773	
Sinking fund and repayments 1,465	
Total of capital charges ... ...——	3,702
Surplus for year	£566

Moderate Rates at Bury.

THE public lighting consists of 34 arc and 18 incandescent lamps. The current consumed by these was 54,664 units, yielding in the aggregate £600, and the expense incurred in maintenance was £104. The receipts were obtained from the following sources:—

BURY.	Units.	Yielding.	Per uuit.
Private consumers took ...	550,617	£6,577	=2·867d.
Public lamps consumed ...	54,664	600	=2·634d.
First interim total ...	605,281	£7,177	=2·846d.
Traction sales amounted to	67,630	422	=1·498d.
Second interim total	672,911	£7,599	=2·710d.
Meter rentals	—	159	= ·057d.
Motor hiring	—	236	= ·122d.
Work done	—	106	
Total revenue	672,911	£8,100	=2·889d.
Used on works	15,675		
Total accounted for ...	688,586	(The Maximum load was 487 kilowatts, equal to a 15·78 per cent. load factor.)	
Utilised on distribution ...	42,597		
Total units generated ...	731,183		

The load factor being only 15·78 per cent., the works cost of under ¾d. per unit is very satisfactory, and the total cost, including street lighting maintenance at 1·367d., is equally so, while the capital charges at 1·32d. are below the average, and will be still further reduced as the traction output is increased. The Midland Corporations generally set a very good example in the direction of moderate rates, which usually result in an average per unit of something between 2d. and 3d. per unit. In the case of Bury the costs incurred are about equally divided between production and capital charges, 1·3d. each, leaving about ·2d. per uuit surplus, as the receipts are about 2·8d. per unit.

	Amount.	Per unit.
Works cost	£2,066 = ·736d.	
Rates, taxes, and management	1,662 = ·594d.	
Total cost	£3,728 = 1·330d.	
Public lamp maintenance ...	104 = ·037d.	
Gross cost	£3,832 = 1·367d.	
Interest charges...	2,237 = ·798d.	1·320d.
Sinking fund charges	1,465 = ·522d.	
Total actual cost of units sold	£7,534 = 2·687d.	
Surplus for year...	566 = ·202d.	
Total revenue	£8,100 = 2·889d.	

Chester.

THE results of the Chester Corporation electricity supply have improved considerably with the addition of a traction load, and those for last year are auspicious for the future. With the balance brought forward there is a total surplus of £2,200, and this has been placed to reserve, making the amount in hand £8,404 to meet any extraordinary calls. The first table shows the general features of the revenue and nett revenue accounts, including the balance brought forward and bad debts. The provision made to meet bad debts is anticipatory, and should this amount not be required it will appear as a credit balance in the next accounts. The accounts to March 25th, 1904, show that—

The revenue derived from sales of current, &c., amounted to	£16,585
And the working expenditure to	8,126
Leaving a gross profit of	£8,459
To which was added the balance brought forward from the previous year	98
Making a total of...	£8,557
Out of this sum the following requirements were met:—	
Interest on mortgage debt £3,224	
Sinking fund and repayments 3,026	
Provision for bad debts 107	
Total of capital and special charges ...——	6,357
Surplus for year, including balance ...	£2,200

Surplus for the Year.

THE private supply rates are 4½d. and 2½d. per unit; street lighting works out at 2½d., and the traction supply at 1¾d. Owing to the large public lighting and traction load, which together amount to 654,180 units, as compared with 619,033 units sold to private consumers, the load factor is high, 19·15 per cent., and the capital charges are correspondingly low, 1·178d. per unit. The street lighting consists of 211 arc and 485 incandescent lamps, which is a fair showing for a town of the size of Chester. The receipts work out as follows:—

CHESTER.	Units.	Yielding.	Per unit.
Private consumers took...	619,033	£9,954	= 3·850d.
Public lamps consumed...	415,108	4,334	= 2·506d.
First interim total ...	1,034,141	£14,288	= 3·316d.
Traction sales amounted to	239,072	1,743	= 1·750d.
Second interim total..	1,273,213	£16,031	= 3·022d.
Meter rentals	—	389	= ·073d.
Motor hire	—	6	= ·011d.
Work done and goods sold	—	52	
Revenue in all ...	1,273,213	£16,478	= 3·106d.
Used on works	149,921		
Total accounted for ..	1,423,134	(The maximum load was 759 kilowatts, representing a load factor of 19·15 per cent.)	
Utilised on distribution	109,902		
Total units generated.	1,533,036		

The nett surplus for the year, excluding the balance brought forward and retaining the provision for bad debts in the current year, amounted to £2,102, the allocation of the total receipts being shown in the following table:—

	Amount.	Per unit.	
Works cost	£4,989	= ·940d.	
Rates, taxes, and management	1,808	= ·341d.	
Total cost	£6,797	= 1·281d.	
Public lamp maintenance...	1,329	= ·251d.	
Gross cost	£8,126	= 1·532d.	
Interest charges	3,224	= ·608d.	1·178d.
Sinking fund...	3,026	= ·570d.	
Total actual cost of uuits sold £14,376		= 2·710d.	
Nett surplus for year ...	2,102	= ·396d.	
Revenue in all	£16,478	= 3·106d.	

Comparison of Capital Invested.

THE capital invested in the two undertakings referred to above was covered by the items now given:—

Local Authority ...	BURY.	CHESTER.
Lands	£2,383	—
Buildings	11,702	£15,937
Machinery	26,353	35,228
Accumulators	2,143	2,505
Mains and services ...	21,647	36,065
Meters	2,860	4,768
Motors	3,047	—
Electrical instruments...	324	494
Public lamps	1,009	10,994
Various	2,021	338
Total capital	£73,489	£106,329

The Bradford Breakdown.

THE Board of Trade report upon the Bradford breakdown in supply, is a timely reminder that electricity mains may be laid down and put out of sight—perchance ignored and almost forgotten; but if they are not treated as all engineering appliances ought to be, and periodically tested, it is only a matter of time ere trouble comes. The great difference between the generating and distributing plant of a central station system is that the former can be duplicated, and is always available for inspection; whereas the latter is (except in the matter of feeders) not provided with "spares," and cannot be readily examined. The causes of the trouble at Bradford are stated to be want of electrical continuity of the lead-sheathing across the joint-boxes and leakage of current; in other words, electrolytic action has been going on. This seems to have destroyed the lead sheathing and exposed the insulation to damp. The Board of Trade rules have always insisted upon the necessity for electrical continuity throughout the distributing system. This can only be ensured by proper bonding wherever the sheathing is cut, as at boxes. Next in importance to this comes efficient earthing of all parts not intended to carry current. These requirements are universally mentioned in specifications, but contractors do not yet appear to fully realise the importance of carrying them out in the spirit as well as the letter, and it remains for engineers to see that the stipulations made are fully complied with. Perhaps the reliance which has been placed on "box compound" has something to do with the difficulty. This is used to make a watertight seal with the box-body in the cheaper class of these appliances, although nothing less than a plumber's wiped joint can generally be regarded as satisfactory.

Fuses and their Position.

ANOTHER point mentioned in the report is the absence of fuses, and of arrangements for preventing an extensive stoppage of supply. Fuses are a relic of a barbarous age, but it is not an easy matter to find a substitute except on switchboards. Engineers have argued the question over and over again as to whether fuses should be provided in street boxes on the route of mains, and no decision has been arrived at which can be said to be final. Without them the district—affected by a failure on the network of mains—is necessarily a large one. When they are introduced they sometimes bring with them a new set of troubles of their own. It would appear, however, that to limit the interference with the supply which follows a fault on the cable system a reasonable number of weak links (such as fuses) should be introduced, but that their position should be carefully decided, and they should be frequently inspected. The inconvenience attending the below-street level box has led to the sectioning pillar making its appearance on most lighting systems, following its general adoption on tramway lines, and although these obstacles on the public footway are a source of annoyance to borough engineers, there can be no doubt that they are now indispensable adjuncts to the electrical engineer, who finds in them accessible points at which to test and split his cables, and can safely fix fuses and instruments above ground which would be inoperative in a pit. By keeping the feeding and distributing portions of the cable system apart and supplying the sections of the latter through fuses in such pillars, the risk of a general disturbance to supply is so greatly minimised that it may be said to be removed from the realm of probability.

Municipal Employment.

WHEN time hangs heavily upon the hands of the electrical engineer his pet hobby appears to be the concocting of a letter to one of our electrical contemporaries. The favourite subject for the moment is the hardship of municipal employment, yet there is no dearth of applicants for any vacant post, nor does the stream of applications seeking "the next vacancy" dwindle. The form in which such complaints are couched varies. One writer

may cite his grievance that municipal electrical engineers do not reply to every letter seeking for advice or a position. Another, that electricity committees follow private employers in reserving to themselves the right to fix, and to vary when they consider it necessary, the conditions under which their officers carry out their duties. Actions, which in the case of a private firm or company would pass unnoticed, are regarded as hardships by the municipal servant in many instances, and he flies to the Press to ventilate his grievance. Yet we find that the permanency attaching to a municipal office, the chance of promotion, and the freedom from petty tyranny which is the great advantage in public life, continue to attract some of the best men in the profession. When it is said that the electrical profession is rapidly deteriorating, we fancy the seat of the trouble lies in the grumblers themselves. There are, of course, public bodies which with a certain constitution may be hard taskmasters, and there are officers who anticipate a career of more than ordinarily rapid progress; but, on the whole, we are convinced that for the self-respecting, skilled engineer the holding of an office in the electricity undertaking of a local authority is a stepping-stone to a professional position, yielding reasonable emoluments, and affording an outlet for the highest technical attainments.

DERBY ELECTRICITY UNDERTAKING.

GRADUALLY INCREASING PROFITS.

THE returns for the tenth year's work in connection with the Derby Corporation electricity undertaking show that substantial progress has been made. For the first few years there were large deficits in this department, but during recent years the prospects have brightened, and the latest figures show a useful profit.

The increased demand for electricity and the gradual reduction of cost during the past three years is illustrated by the following:—Year 1901-2, consumers 870, lamps 75,972, number of units sold 1,081,487, total cost per unit 2·07d.; 1902-3, consumers 1,002, lamps 87,502, number of units sold 1,287,619, total cost per unit 1·561.; 1903-4, number of consumers 1,240, lamps 106,790, number of units sold 1,490,611, total cost per unit 1·451.

The amount of loan sanctioned was £196,048. Of this £159,369 has been borrowed at the rate of 3 per cent. The amount repaid is £28,836. The capital expenditure at the ends of the ninth and tenth year was respectively £159,657 and £189,386; revenue from electricity supply, £17,137 and £18,950; revenue from meter rents and other sources, £1,319 and £1,504; total revenue, 1902-3, £18,456; 1903-4, £20,454; total costs, £8,389, £8,986; gross profit, £10,067 and £11,468; percentage of gross profit to average capital, 6·50 per cent. and 6·57 per cent.; interest on loans, less interest receivable, £4,430, £4,937; sinking fund, £5,040, £4,814; percentage of ditto to average capital, 3·25 per cent., 2·76 per cent.; financial result after providing for interest and sinking fund, surplus, 1902-3, £597; 1903-4, £1,717.

MUNICIPAL SMALL LOANS.

To the Editor.

SIR,—With regard to your note on the above subject, in issue of January 13th, in which you quote from the *Globe* that the municipalities are offering more favourable terms than the banks can afford, and describes this as "most unfair and illegitimate competition," why, I would ask, is the "competition unfair and illegitimate"? Looking to the half-yearly accounts of banks throughout the country, recently published, it seems to me that institutions which pay from 12 to 20 per cent. may well stand a little competition, with great advantage to the general public who are not holders of bank shares.—Yours, &c,

L. R. E.

A CURIOUS CORPORATION.

THE "TWELVE CAPITAL BURGESSES OF SHEFFIELD."

IN the Chancery Division on Saturday Mr. Justice Joyce had before him a petition presented by the Sheffield Corporation for the investment in land of £12,000 belonging to the "Twelve Capital Burgesses of Sheffield."

Mr. Hughes, K.C., in support of the petition, said the Twelve Capital Burgesses of Sheffield was a corporation formed under letters patent of Queen Mary.

Mr. Justice Joyce asked what they did with their income.

Mr. Hughes said it was devoted partly towards Church purposes and partly for certain secular purposes in connection with the maintenance of bridges under a scheme. The money had been paid into court under certain sales by the Corporation of Sheffield and by the Great Central Railway under the Lands Clauses Act. It was proposed to invest £12,000 in purchasing freehold lands in Sheffield.

His Lordship sanctioned the investment.

MUNICIPAL FOREMEN.

ANNUAL DINNER.

THE third annual dinner of the Provident Institution of Municipal and Allied Foremen was held on Saturday evening at the Holborn Restaurant.

Mr. W. Dawson, the engineer and surveyor to the Leyton Urban District Council, presided. He said the usefulness of the institution was now recognised by all thrifty municipal and allied foremen. They had a membership of 256, and there had been a 10 per cent. increase during the past year.

One widow had 7s. per week, and two members 10s. each per week. As much as £42 had also been paid in assistance in addition, and they had a balance in the bank of £320.

J. C. WHITE & COMPANY, LIMITED.
ELECTRICAL, MECHANICAL & CIVIL ENGINEERS
GENERAL CONTRACTORS
22A, COLLEGE HILL, CANNON ST LONDON, E.C.
TELEGRAMS "WHITTERICK, LONDON." TELEPHONE 6044 & 6045 BANK

WM. GRIFFITHS & Co., Ltd.,
35 to 39, HAMILTON HOUSE, BISHOPSGATE STREET WITHOUT,
LONDON, E.C.,
CONTRACTORS FOR CONSTRUCTION OF TRAMWAYS
AND MUNICIPAL WORK OF ALL DESCRIPTIONS.
QUARRY OWNERS AND STONE MERCHANTS.
LARGE STOCKS ON HAND OF
PITCHINGS, KERB, MACADAM, YORK STONE, JARRAH TIMBER, &C.
TELEGRAPHIC ADDRESS—"GRIFFITHS, STONE, LONDON." TELEPHONES—Nos. 2868 and 2869, LONDON WALL.

TRAMWAY TOPICS.

Enormous Increase in Passengers and Receipts at Liverpool. Progress of a Notable Work in North Wales. Discarding Steam for Electric Power. The Present Position at Heywood and Rochdale and the Running Conditions Laid Down. Glasgow and its Extending System.

SIR CHARLES PETRIE, presiding at a meeting of the Liverpool Tramways Committee last week, said that during the past year there had been an increase in passengers and receipts, although it was not so great as that of 1903 over 1902. They could not now anticipate increases by leaps and bounds, but they were still forging ahead, and if they could get new lines and the extension which the committee recently sought, he thought the increase would be much larger. There was room in Liverpool and district for considerable extension of the system, and he hoped that before long the City Council and the public would be able to see eye to eye with the committee, not only in regard to the extension of the passenger system, but also in regard to the transmission of merchandise. The following table was submitted of the returns for 1904 and for seven preceding years:—

Year.	Mileage.	Passengers.	Receipts. £	Increase in Receipts.
1897 ...	6,013,180	... 38,409,084	... 290,743	... —
1898 ...	6,279,758	... 41,772,034	... 314,207	... £23,464
1899 ...	7,600,545	... 63,771,450	... 359,929	... 45,722
1900 ...	9,100,866	... 82,367,958	... 417,574	... 57,645
1901 ...	10,970,063	... 101,108,780	... 468,383	... 50,809
1902 ...	11,790,815	... 109,315,585	... 506,626	... 33,243
1903 ...	11,734,838	... 113,057,234	... 524,509	... 17,883
1904 ...	12,166,419	... 116,642,663	... 540,916	... 16,407

The increase for the year 1904 over 1903 has been as follows:—Mileage, 3·68 per cent.; passengers, 3·17 per cent.; and receipts, 3·13 per cent. The increase for 1904 over 1897, the last year of the company's control, is as follows:—Mileage, 102·33 per cent.; passengers, 203·68 per cent.; and receipts, 86·05 per cent.

❦ ❦ ❦

Electrifying Snowdonia.

THE task of electrifying the Snowdonian valleys is progressing, and before the advent of summer there will be laid a network of electric wires and cables through some of the prettiest bits of scenery in North Wales. For months past quite an army of navvies, generalled by a staff of engineers, electrical and otherwise, have been at work, with the result that the power station at Llyn Llydaw, where the motive power is to be obtained, has been nearly completed. The machinery has been delivered, and hundreds of tons of cables, and when the tunnels through the pretty Pass of Aberglaslyn have been completed the line will be practically ready, so that there will be a direct communication from Carnarvon via Dinas and Beddgelert to Portmadoc. The narrow gauge railway is being electrified; the overhead wires are being laid, and the whole of the new rolling stock is on order. The power lines have been laid not only along the route of the railway, but through the Nantlle valleys. Many of the quarries, both here and in Festiniog, will be worked by electricity, for the owners, having been convinced that they will be able to save at least 25 per cent. in the working of the hauling and pumping, will discard steam and order electric power. So far no progress has been made with the railway from Dinas to Carnarvon, and before the Bettws-y-Coed line can be taken in hand the Order will have to be confirmed.

❦ ❦ ❦

Leith and the Lowest Tender.

A REQUISITION was presented by four members of Leith Town Council calling a meeting of the Council for Monday to consider the action of the Tramways Committee in accepting an offer by the Brush Electrical Company for the supply of cars for the new electric system of tramways in the burgh at £19,228, when it had a lower offer before it, upon which, it is stated, the Council's engineer had favourably reported. It is understood that the committee acted with powers, and the acceptance of the offer was carried by eight votes to seven, there being three members absent, but official intimation of the fact, it is believed, had not been made to the company, so that it will not be binding on the Corporation.

❦ ❦ ❦

Kirkaldy and Dysart.

THE proposal to extend the Kirkaldy Corporation tramways to Dysart is taking practical shape, and is likely to be carried through without much delay. The estimated initial cost of the undertaking is £9,000, and with a fifteen minutes' car service it is calculated that a weekly drawing of £35, or £5 a day for seven days, would meet expenses. The total length of the extension is 1¼ miles, and the cost of running works out at about 8½d. per car mile. Several guarantees against loss have been forthcoming, one of £100 for ten years from Sir Michael Nairn, Bart.

❦ ❦ ❦

Covered Cars for Newcastle.

TWO covered-in double-deck cars will shortly be placed on the tram lines of Newcastle as an experiment. The Mayor of Newcastle, who was lately in Leeds, has been making inquiries regarding similar cars that are being run in that city, and has been informed that these cars are each making 30s. a day more than the other cars.

❦ ❦ ❦

Glasgow Employees' Social.

THE annual social gathering of the employees of the Glasgow Corporation Tramways Department was held on Friday night in the City Hall. Sir John Ure Primrose, Bart., the Hon. the Lord Provost, presided, and among others on the platform were Bailies Taggart and Steven, Councillors Hugh Alexander, Alston, Boreland, Boyd, Breeze, Burgess, Dallas, Finlay, Harvey, Henderson, King, Montgomery, and Paxton, and Mr. James Dalrymple, the general manager. After tea, the Lord Provost delivered an address. At the outset he made reference to the severance of ex-Bailie Paton's long connection with the department, and to the excellent work he accomplished as convener of the Tramways Committee. After expressing regret at the departure of Mr. John Young for London, his lordship gave some interesting details regarding the working of the tramway system. They were now, he said, operating 72½ miles of road. It was estimated that this year there would be an increase of about £30,000 in the revenue. The record weekly income had been reached last week, when the drawings amounted to over £17,000. The staff numbered 4,030, of whom 3,200 were members of the Friendly Society.

❦ ❦ ❦

Other Details.

THE Corporation was applying for power to make further extensions, and these when completed would add 20 miles of road to the system. In the workshops they were putting top covers on 100 cars, and they were building 100 additional cars. Since last year the motormen who had been free from accidents had been getting a bonus. The superannuation fund was growing steadily, the invested funds now amounting to £9,500. The present annual car mileage was 16,500,000 miles, and the number of passengers carried was 200,000,000. The estimated revenue for this year was £750,000. The weekly wages bill was £5,400. In the further course of his speech the Lord Provost alluded to the growth of suburban localities as the result of the facilities for transit now provided, and in this connection he urged the importance of the enlargement of the taxable area of the city. In concluding, his lordship commended the conductors of the cars for their courtesy to the public, and expressed his satisfaction with the extent to which the employees were taking advantage of the provident scheme connected with the department. An interesting concert followed.

❦ ❦ ❦

Another "Test Case."

THE Sunderland magistrates last week fined a passenger £1, including costs, for obstructing a tramcar inspector. The evidence was that the defendant paid the fares of himself and two companions, and when asked by the inspector to show the tickets, produced these torn up, so that the inspector could only find the number of one of them. The defendant, it was stated, admitted that he tore up the tickets purposely, "as he wished to have a test case." The Bench described his conduct as most unreasonable.

❦ ❦ ❦

Tramways and Light Railways Association.

THE members of the Tramways and Light Railways Association on Monday afternoon availed themselves of the opportunity of visiting the huge power-house and repairing sheds of the Central London Railway at Shepherd's Bush, the western terminus of the line. The journey was very successful, for the depot contains much that is highly interesting to all who are concerned with the subject of electric traction. The party inspected the various houses in which work is carried on, proceeding from the cellars—in which the coal, which is almost entirely "smokeless Welsh washed peas," is stored and separated from the dust—to the engine-house, where the current to operate the system is generated at 5,000 volts, and is sent out to transforming stations placed along the route for reduction to 550 volts direct. The long car-sheds for the storage and overhauling of the trams were also visited, one of the six steel-framed cars which were made at Birmingham about eighteen months ago being examined. These cars have been running very satisfactorily for some time, their chief advantages over the old wooden description being the increased lightness, the less likelihood of taking fire, and the greater internal space, owing to the walls being so much thinner. An interesting point mentioned by Mr. Granville Cuningham, the general manager, who arranged the visit, is that a greater number of the men employed at Shepherd's Bush are sailors and marine engineers, it being found that they have not only acquired a certain knowledge of electrical work before coming to the depot, but that they are better disciplined and more reliable than other employees.

❦ ❦ ❦

Heywood Deadlock.

THERE was a long discussion at the meeting of the Heywood Town Council last week on the negotiations which have been proceeding between the Tramway Committees of the Heywood and Rochdale Corporations for the temporary running of the Heywood steam trams into Rochdale borough as far as Sudden, where the Rochdale electric cars now run. The Rochdale committee is prepared to allow the Heywood cars to run, but lays down a number of conditions. Among them is one binding the Heywood Corporation not to attempt to obtain at any time in the future powers to run its cars into Rochdale borough. Other conditions require Heywood to put the track and road into repair, and provide for the stoppage of the trams at seven days' notice. The Heywood committee struck out some of the proposals, and submitted an alternative agreement, in which it offered to repair the road and the track, to bear all responsibility for any damages which might arise, and to cease running the cars at any time Rochdale desired it on receipt of a few days' notice. The committee, however, declined to bind itself not to seek for running powers into Rochdale in the future. Correspondence which had taken place between the respective boroughs was ready, including a letter from the Rochdale town clerk, intimating that the Tramway Committee could not agree to the alterations suggested by the Heywood Tramway Committee. In the discussion which followed it was pointed out that the advantage to Roch-

dale by having the connection would be as great. if not greater, than to Heywood. Regret was expressed that an agreement had not been arrived at, but it was urged that Heywood had gone as far as was reasonable, and could not accept the conditions laid down by Rochdale.

❦ ❦ ❦

From Conductor to Traffic Superintendent.

THE traffic superintendent of the Edinburgh and District Tramways Company was, a days ago, presented with a handsome gold watch for his services in connection with the Tramway Employees' Widows and Orphans Fund, which he founded in October, 1903. The company's employees entertained him to dinuer, the general manager (Mr. J. E. Pitcairn) presiding. No contributions towards the fund are taken from the men, the proceeds of concerts, which are held annually, and a donation from the directors, forming the sum total of the capital account. Since the fund was inaugurated £90 has been paid away in relief to widows and orphans, there being five of the former and 15 of the latter receiving from 7s. 6d. to 10s. a week. In making the presentation. the chairman spoke of Mr. Shepherd's great service to the fund, and alluded to the striking fact that he commenced his tramway experience as a conductor in the service of the Manchester tramways 20 years ago. Annual simultaneous concerts at two of the city halls were held in the evening. At both entertainments the items in the programmes were the same, the artistes driving from the one hall to the other between their "turns."

❦ ❦ ❦

Dublin Tramways.

THE report to be presented on Tuesday next of the Dublin United Tramways Company (1896), Limited, shows that the amount available for division is £50,313, out of which dividends for the half-year are recommended at the rate of 6 per cent. per annum on the preference shares, and at the rate of 6 per cent. per annum, free of income tax, on the ordinary shares. It is proposed to write off £3,365, the balance of the cost of electric welding, to place £4,000 to reserve fund. and £1,000 to accident insurance fund. These dividends and the sums set aside will absorb £43,465, leaving £6,847 to be carried forward. A special meeting will be held after the ordinary meeting to consider a Bill promoted in Parliament for the transfer of the undertakings of the Dublin United Tramways Company and the Dublin Southern District Tramways Company to the Dublin United Tramways Company (1896), Limited.

❦ ❦ ❦

West Ham Tramway Employees' "Social."

A SOCIAL evening and dance in connection with the West Ham Corporation Tramways Social and Athletic Club was recently held in the Warwick Room of the Alexandra Hotel, Stratford, when there was an excellent attendance of employees and friends. The tramways manager (Mr. H. E. Blain), presided, and amongst others present were the chairman of the Tramways Committee and Mrs. Ivey, Councillor Littler, and Mrs. Blain. An excellent programme of vocal and instrumental music, interspersed with dancing, and including a short dramatic sketch, was rendered, and the whole function was very successful. The room was tastefully decorated with coloured lights, flags, and plants. During an interval, short speeches were made by Alderman Ivey and the tramways manager.

❦ ❦ ❦

Nottingham Tramways Employees En Fete.

THE first of three gatherings in connnection with the Nottingham Corporation Tramways employees' annual dinner took place on Tuesday evening, when Mr. John Aldworth, general manager, presided. The dinner is held on three successive nights, so as to enable as many of the employees as possible to participate without interfering with the convenience of the travelling public. The Mayor (Alderman J. Bright, J.P.), Councillor J. Houston, the electrical engineer (Mr. Talbot), and the city engineer (Mr. Brown), supported the president; while the Tramways Department staff was represented by the car superintendent (Mr. W. Boot), the cashier (Mr. J. Husbands), the chief clerk (Mr. A. Jackson), the chief inspector (Mr. H. Morley), and the traffic clerk (Mr. C. Brown). The number of toasts was wisely limited, and a lengthy and excellent musical and dramatic programme provided.

PUBLIC HEALTH CONGRESS.

IMPORTANT JULY FIXTURE.

TO the London Congress of the Royal Institute of Public Health, fixed to take place from the 19th to 25th July next, in King's College, Strand, London, delegates from the whole of the municipal and educational authorities of the United Kingdom have been invited, in addition to the universities, medical corporations, and learned societies, and a large attendance is expected. The congress will be conducted in the following nine sections:—(a) Preventive Medicine, (b) Municipal and Educational Administration, (c) Child Study and School Hygiene, (d) Engineering and Building Construction—(1) Municipal, (2) Educational; (e) Bacteriology and Chemistry, (f) Veterinary Hygiene, (g) Tropical Hygiene, (h) Naval and Military, (i) Ladies' Section.

MUNICIPAL ELECTRIC TRAMWAY RETURNS.

Undertaking.	Date of Opening.	Length of Route.	Total Length Track.	Year ends.	Last Weekly Return.		Corresponding Week 1903.		Total Receipts for Year.	
		Miles	Miles		Receipts.	Passengers.	Receipts.	Passengers.	1903.	1904.
Aberdeen	Dec. '99	2·50	5	May 31	1,060	—	1,050	—	46,719	40.908
Ayr	Sept. '01	6	8	—	168	50,322	160	48,007	11,223	10,697
Birkenhead	Feb, '01	13·52	23·53	March 31	954	197,572	1,003	203,603	43.540	44,148
Blackburn	Mch. '99	13½	13½	March 25	707	133,724	703	128,537	33,416	30,120
Blackpool	Oct. '84	3	6	March 31	330	—	268	—	44,179	38,124
Bolton	Nov. '99	25	35	March 31	1,591	346,578	1,628	357,716	77.156	76,745
Bournemouth	July '02	11·8	18·2	March 31	906	168,910	887	163,876	52.445	17,637
Bradford	July '98	53¾	95¼	March 31	3,729	—	3,366	—	169.463	142,382
Brighton	Nov. '01	6·5	11·75	—	755	170,423	741	177,900	—	—
Burnley	Mch. '02	10·60	10·60	March 31	994	180.802	777	138·562	—	—
Cardiff	Dec. '01	16	30	March 31	—	—	—	—	—	—
Darwen	Oct. '00	4·5	4·25	Dec. 31	—	—	—	—	—	—
Dover	Sept. '97	3·5	4·5	March 31	170	43,767	170	43,871	9,400	9,520
Dundee	July '00	12·56	23·1	March 31	808	—	768	—	24,512	—
East Ham	June '01	6·6	10·75	March 31	612	230.747	585	221.621	29,532	27,941
Glasgow	Oct. '98; Extens., April '01	72½	143	May 31	13,328	3,516,255	12,656	3,366.226	471,094	447,964
Halifax	—	—			2,497	599.280	2,173	521,520	68.008	61,151
Huddersfield	Feb. '01	—	32	March 31	—	—	—	—	—	—
Hull	July '99	12·25	25	March 31	2,066	495,858	1,937	469,860	90,562	79.690
Ilford	Mar., '03	6·5	10·5	—	355	94,418	323	—	18,765	17,842
Ilkeston	May, '03	3·5	4	—	102	26.657	114	29,618	—	—
Leeds	Aug. '97	37	71	March 25	5,247	—	4,877	—	242.031	223,338
Liverpool	Nov. '98, June '99	66	114	Dec. 31	10,272	2,228,642	9,622	2,071,735	10,272	12,686
L.C.C.*	1897, Jan. '99	—	47¼	March 31	12.689	—	9,325	—	513,921	400,916
Manchester	June '01	72	131·50	March 31	11,558	2,362,430	10,531	2,173,426	502,991	481,100
Nelson	Mch. '02	2·75	3·5	—	105	32,421	93	27,595	4,942	3,616
Newcastle	Dec. '01	17	36	—	3,393	767,471	3,446	763,980	—	—
Oldham	Dec. '00	18	28	—	1,363	270,930	1,038	233,925	52,210	49,340
Portsmouth	Sept. '01	15	28	—	1,465	314,313	1,355	297,536	80,417	74,076
Reading	July '03	7½	13⅓	—	511	119,362	491	113,933	—	—
Rotherham	Jan. '03	7⅓	—	March 25	386	87,899	391	86,758	17,324	14,777
Salford	Oct. '01	32½	59½	March 31	3,736	—	—	—	169,007	—
Sheffield	Sept. '99	32½	59½	March 25	4,349	1,155,625	4,143	1,097,832	195,543	191.651
Southampton	Sept. '98	9⅜	16⅜	March 31	853	159,594	855	166,496	40,369	42,675
Southend-on-Sea	July '01	6·85	—	March 31	—	—	—	—	—	—
Sunderland	July '00	12·27	23	—	1,038	—	1,013	—	52.538	51,201
Wallasey	Mch. '02	9	10·5	March 31	653	124,748	594	113,794	31,100	23,993
Walsall	Jan. '04	12¼	13½	Dec. 31	436	78,785	471	87,461	874	977
West Ham	Feb. '04	9·78	12·98	—	1,110	325,377	—	—	44,226	—
Wolverhampton	April '02	11·258	16·848	March 31	702	152,129	392	77,470	—	—

* Also includes the horse lines.

DICK, KERR & Co., LIMITED,

ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Contractors for Municipal Lighting and Tramway Schemes.

Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Branch Offices:—Manchester—Northern Assurance Buildings. Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

RAND WATER BOARD.

AWARD OF THE ARBITRATION COURT.

A WATER BOARD arbitration has been proceeding at Johannesburg as well as in London, and the *Times* correspondent was on Monday able to announce the result. The Rand Water Board was formed with the object of consolidating the existing systems of water supply on the Rand, in order to improve and cheapen that supply. Under the ordinance, which was passed last session by the Legislative Council, the Johannesburg and other municipalities of the Witwatersrand and the mines divide between them the representation on the board, while security for the issue of stock loans raised is provided by means of a dormant rate. The scheme entailed the expropriation of three water companies.

The Arbitration Court, presided over by Mr. Worsley Taylor, which has been sitting at Johannesburg during the last two months, has given the following award:—The Waterworks Company claimed £4 299,900, and is awarded £1,281,185; the Vierfontein Syndicate, which claimed £546,805, is awarded £477,754, and the Braamfontein Company, which claimed £160,875, is awarded £45,450. It is estimated that the other liabilities devolving on the board will bring the total amount paid for expropriation up to £2,224,000. This figure should allow the present water rate to the ordinary consumer to be reduced from 10*s.* to 5*s.* a thousand gallons within a reasonable period, while still providing interest on the sinking fund for the necessary loan. Any loan raised by the Water Board has such exceptional security that no anxiety need be felt with regard to its reception.

PROPOSED MUNICIPALISATION AT SUNDERLAND.

SUNDERLAND Town Council last week passed a resolution in favour of the municipalisation of the water supply, and appointed a committee to act in the matter. The resolution was in the following terms:—

> That this Council regrets the action of the Sunderland and South Shields Water Company in increasing the water rate in various parts of the borough, more particularly in cases where no increased assessment of property has taken place. And, further, that in our opinion the time has arrived when the whole question of the water supply of the borough should be thoroughly gone into, and, with a view to that end, a special committee is hereby appointed, such committee to consist of a representative from each ward in the borough, as also four aldermen. The duty of such committee shall be to gather information as to the desirability or otherwise of municipalising such water supply, either separately or in conjunction with the other authorities interested in so far as the scope of the above company is concerned, and to take such other steps as the committee may think proper in order to enable them to present a full and complete report to this Council. The committee to present a preliminary report not later than six months from this date.

Councillor Summerbell, who proposed the resolution, said he had received an intimation from the company stating that, in consequence of the re-valuation of his property by the Assessment Committee, his water rate would be raised a shilling per annum. As a matter of fact, his house had not been re-valued or re-assessed; it was rated now the same as it had been for several years. Therefore, no such demand ought to have been made. Legally, however, the company had the right to make the demand, though it was wrong to say it was due to increased assessment.

Councillor Summerbell gave some striking facts concerning the company. In 1846 a handful of men was allowed to get the natural rights of the people of Sunderland in regard to the water supply with a bill for £35,000. Since then the company had gone on adding to its capital without opposition, and next session it intended to ask Parliament for power to borrow £750,000 more.

There was practically no discussion on the subject, and, on a vote being taken, 35 voted for the resolution, one against, and 15 did not not vote.

PROPOSED PURCHASE OF SCALBY WATERWORKS.

THE Local Government Board has sanctioned the application of the Scalby Urban Council to borrow £3,000 for the purchase of the Scalby Water Company's property and undertaking, the repayment to be within 20 years. Before granting permission to borrow £500 for the extension of the waterworks, the Board desires to be furnished with the Council's remarks on the claim of the Scarborough Corporation to the exclusive right of supplying water within a portion of the Scalby urban district. This matter will be discussed at the next meeting of the Scalby Council.

WELSH WATER FOR RUNCORN.

THE Runcorn Urban District Council has resolved to apply to the Local Government Board for sanction to a loan of £6,000, to be repaid in sixty years, for the purpose of laying a 12in. main from the Liverpool-Vyrnwy main at Norton Tower to the Runcorn Reservoir. Mr. Pritchard, who is chairman of the Water Committee, explained that this scheme would add 5d. in the £ to the general district rate. The soft water would be a great boon to the manufacturers of the district.

THE GARDEN CITY.

PROGRESS OF THE MOVEMENT.

"IDEALISTS must not push forward their ideals too fast," was the advice which Mr. Ebenezer Howard, founder of the movement, pressed on the members of the Garden City Association in London on Tuesday. If a single drop of alcohol were sold in the Garden City, he had been told, the place would not be worthy of its name. There must be no butchers' shops, no open fires, no street noises, no motor cars. "Pray let us be practical," he urged, "and we shall succeed."

The Garden City was undoubtedly smaller in size than the city he first projected, but this was not without its advantages, and the essential features of the plan would be in a large measure preserved. The city would be as nearly as possible in the centre of the area selected; there would be a zone or belt of open land within the town, sites for public buildings would be selected, and, above all, ample provision would be made against overcrowding, by not permitting more than 12 cottages to one acre of land.

Even if the first garden city were not the paradise on earth that some had designed, the first result of the experiment would, he believed, be that the number of people who favoured the scheme would be increased a thousand-fold, and the glorious task which an insignificant minority could not compass would be found quite easy by the majority of the nation. "Let us," he said, "bend all our energies to the successful carrying out of this enterprise, assured that by our efforts we are preparing the way for one of the greatest national movements of modern times."

In the report to the annual meeting, over which Mr. Herbert Warren presided, the committee remarked that one of the most conspicuous features of the year's work was the extension of the propaganda to other countries. Another marked feature had been the successful efforts made to arouse interest in the movement among the various sections of co-operators. Early in the year a desire was expressed by the council for more intimate relationship with the first Garden City Company, which owed its formation to the work of the association, and as a result a joint committee had been formed to discuss subjects of common interest, with a view to the maintenance of the ideals of the association in the development of the city.

THE foundation stones of the new Quarter Sessions Court, Police Buildings, and Fire Station at Sunderland were laid on Wednesday afternoon by the Mayor (Councillor Fred Foster) and the Chairman of the Watch Committee (Councillor J. G. Kirtley).

ABOUT BOOKS.

THE FEEDING OF BABIES.

OF late years several of our municipalities have evinced a tendency to increase their responsibilities by opening depôts for the supply of specially prepared milk for infants. Depôts of this kind have already been established by about a dozen municipalities, and there are indications that others are about to take similar action. Although the ratepayer has to furnish the necessary funds for these institutions it is not easy for him to inform himself as to their *raison d'être*, for the information relating to their history and objects is buried either in inaccessible official reports or in books too technical for the ordinary reader.

We are interested to note, therefore, that Messrs. P. S. King and Son will shortly publish a book on "Infantile Mortality and Infants' Milk Depôts," by Dr. G. F. McCleary, the Medical Officer of Health of Battersea, in which district a municipal milk depôt has been engaged in feeding babies for over two years. The writer discusses the various causes of infantile mortality, and indicates the lines on which preventive action should move; and in order to emphasise the importance of his subject, he devotes a chapter to the consideration of the decline of the birth-rate in this country and in the colonies.

The importance of improper feeding as a factor in infantile mortality is fully explained, and an account is given of the history and practical working of the infants' milk depôts in this country and in America, and of the similar institutions — the "Consultation de Nourrissons" and the "Goutte de Lait"—in France. Full particulars are given as to the cost of the various appliances, &c., necessary for the work of a milk depôt, and these should be helpful to members of the medical profession, and of local authorities which wish for information on the subject. The book is copiously illustrated by original photographs of various depôts in Europe and America.

BUILDING CONSTRUCTION.

LONGMANS' Practical Elementary Science Series are a well-known and highly appreciated series of students' manuals, and are written in that lucid style that is so helpful to the beginner.

The latest addition is entitled "Elementary Practical Building Construction,"* Stage I., by Frank Wm. Booker, F.S.I. It is based on the notes for a series of lectures to students delivered by Mr. Booker at the University College, Nottingham. Throughout the syllabus of the Board of Education has been kept in view, but some of the concluding chapters wisely carry the student a little further than is absolutely necessary for these examinations. At the end of the work—by permission—are printed the questions given by the Board of Education at the many examinations.

The book is printed in clear type, with a copious index, and contains over 700 illustrations, which serve to explain the technical points in the text.

THE NEW CROYDON DIRECTORY.

WE have received from Mr. Jesse W. Ward, *Croydon Advertiser* Offices, the 1905 edition of his comprehensive and well-arranged Croydon Directory. Several improvements are noticeable, and among the new features an interesting dissection of the Croydon census returns deserves special mention. It is elucidated by diagrams, and comprises a most useful set of statistics. A calendar of the principal local events in 1903 and 1904 is given, together with brief sketches of the town, the remarkable growth of which is again demonstrated by this substantial volume of nearly 750 pages.

THE Local Government Board has just issued an order empowering the Croydon, Kingston, and Richmond Union to combine for the purpose of the erection of a workhouse or workhouses for the reception and treatment of epileptics and feeble-minded.

* Longmans, Green and Co. 2*s.* 6*d.*

Tenders Wanted.

Latest date for sending in tenders in parentheses.

Advertising on Tramway Tickets. W. H. Snow, Town Clerk, Southend-on-Sea. (February 8.) See advt. in this issue.

Alterations, &c., at Electricity Works. J. W. Benton, Clerk to the District Council, Town Hall, Ilford. (January 24.)

Artisans' Cottages—Plans, &c., invited. W. Bagshaw, Clerk to District Council, Public Offices, Wembley. (February 8.)

Asphalte Paving. C. W. Tagg, Town Clerk, Town Hall, Camberwell, S.E. (January 23.) See advt. in No. 624.

Boilers—Lancashire. R. Hilton, Town Clerk, Swindon. (January 24.) See advt. in No. 623.

Brick and Flag Plant. J. Thomas, Town Clerk, Guildhall, Swansea. (January 30.)

Bridge Construction. The Chairman, Rural District Council, 80, Guildford Street, Chertsey. (January 30.)

Cast-Iron Pipes. E. W. Dixon, 14, Albert Street, Harrogate. (January 28.)

Coal Conveyor for Electric Light Works. Keighley Walton, Town Clerk, Town Hall, Halifax. (January 31.)

Contracts—Articles and Works. T. Holland, Town Clerk, Town Hall, Chelsea, S.W. (January 25.)

Contracts—Services and Materials. H. J. Smith, Town Clerk, Town Hall, Kennington Green, S.E. (January 26.) See advt. in No. 623.

Council House and Library. W. Ashford, Clerk to District Council, Public Hall, Erdington. (January 25.)

Electrical Fire Alarms. T. Duncombe Mann, Asylums Board, Embankment, London, E.C. (January 24.)

Electrical—Motors, Water Purifying Plant, and Stores. W. A. Vignoles, Borough Electrical Engineer, Corporation Electricity Works, Grimsby. (January 23 and February 1.)

Electric Light Installation. Messrs. Herbert Lewis and Fletcher, Prudential Buildings, Cardiff. (January 25.)

Electrical Power and Lighting Circuits. H. Ward, Clerk to the Council, Council House, Handsworth. (February 2.)

Electric Tramcars. J. Atkinson, M.I.C.E., Borough Surveyor, Town Hall, Stockport. (February 6.)

Electric Tramways (Shanghai). Messrs. Pook and Co., 63, Leadenhall Street, E.C. (March 31, 1905.)

Erection of Two Public Libraries. E. Docker, Clerk to the King's Norton District Council, 10, Newhall Street, Birmingham. (January 30.)

Extension of Pier. W. L. Macindoe, Town Clerk, Kirkcaldy. (February 4.)

Fire Escape Staircase, &c. H. A. Mullens, Union Offices, Bulcamp, Halesworth, Suffolk. (January 30.)

Footbridge. C. W. Tagg, Town Clerk, Town Hall, Camberwell. (January 23.)

Gas Plant. J. McG. Jack, 25, Waterloo Place, Edinburgh. (January 30.)

Granite and Slag. Urban A. Smith, County Surveyor, Hatfield. (January 28.)

Granite and Slag. A. J. Metcalf, District Surveyor, West Street, Bourne. (January 24.)

Heating, Ventilating, and Hot Water Plant. R. W. Partridge, Asylum Committee Office, 6, Waterloo Place, S.W. (January 23.)

Iron Pipes. B. F. Meadows, Town Clerk, Town Hall, Hastings. (January 23.)

Iron and Steel Work. Chairman of the Gas Committee, Gas Office, Town Hall, Manchester. (January 26.)

Laundry Machinery and Plant, &c. G. F. James, Union Offices, 12, Hagley Street, Stourbridge. (February 2.)

Loans. J. C. Wilford, 17, Fawcett Street, Sunderland. (January 30.)

Loans. Francis L. Thompson, Council House, Sparkhill, Birmingham.

Loans of £50 and Upwards. Haswell Brown, Borough Accountant, Town Hall, Sunderland. See advt. in this issue.

Municipal Buildings—Competitive Designs Invited. H. J. Smith, Town Clerk, Town Hall, Kennington Green, S.E. (March 30.)

Pavilions, &c. Edward Crowne, Clerk to the Council, Tottenham. (January 24.)

Police Clothing. I. G. Lewis, Chief Constable, Town Hall, Blackburn. (January 28.)

Portland Cement. E. W. Dixon, 14, Albert Street, Harrogate. (January 28.)

Printing. Wm. Crouch, Clerk to the Bucks County Council, County Hall, Aylesbury. (January 28.)

Removal of Refuse. A. Atkinson, Clerk to the District Council, Public Offices, Cheriton, Kent. (February 6.)

Reservoir. Sir Samuel Johnson, Town Clerk, Guildhall, Nottingham. (February 13.) See advt. in No. 623.

Reservoir, &c. F. Hughes, Clerk to District Council, Ebbw Vale. (February 6.)

Restoration. G. L. Gomme, Clerk of London County Council, County Hall, Spring Gardens, S.W. (January 24.)

Road and Paving Works. F. Stevens, Clerk to District Council, Beckenham. (January 23.)

Road Repairs. G. Walsh, Clerk to the Council, Bicester. (January 28.)

Road-Stone, &c. J. H. Garrett, County Road Surveyor, Shire Hall, Worcester. (January 28.)

Road Works. A. Atkinson, Clerk to the District Council, Public Offices, Cheriton, Kent. (February 6.)

Road Work and Platelaying. Clerk of the London County Council, Spring Gardens, S.W. (January 24.)

School. G. L. Gomme, Clerk of London County Council, County Hall, Spring Gardens, S.W. (January 24.)

School—Competitive Designs invited. Buildings Sub-Committee, Education Committee, 8, New Road, Oxford. (February 1.)

School Buildings—Remodelling. Competitive Designs invited. J. W. Watkins, Education Office, Llanelly. (January 31.)

School—Competitive Designs Invited. Premiums £50, £30, and £20. Hy. Hamer, Town Clerk, Town Hall, Preston. (February 28.)

Schools—Designs Invited. Premiums £50 and £25. C. G. Watkins, Education Office, Aylesbury. (February 28.)

Sewage Disposal Works. R. W. Evans, Clerk to Sowerby Bridge District Council, Commercial Road Chambers, Halifax. (January 28.)

Sewer. Town Clerk, 3, Park Street, Windsor. (January 30.)

Sewerage Works. F. Winterbotham, Clerk to Rural District Council, 5, Rowcroft, Stroud, Glos. (January 26.)

Sewage Disposal Works. A. J. H. Ward, 42, Church Street, Harwich. (January 24.)

Sewerage and Sewage Disposal Works. M. Warren, Clerk to the Council, Park House, Park Place, Cardiff. (January 26.)

Steel Pipes. E. W. Dixon, 14, Albert Street, Harrogate. (January 28.)

Stone and Chippings for Roads. G. Walsh, Clerk to the Council, Bicester. (January 28.)

Street Works. F. C. Lloyd, Town Clerk, Town Hall, Croydon. (January 24.)

Supplies. T. Duncombe Mann, Metropolitan Asylums Board, Embankment, E.C. (January 25.)

Tar Paving. D. Milton Jones, Secretary, Education Offices, Pontypridd. (January 26.)

Tramways—Construction of. J. Moore Hayton, Town Clerk, Court Buildings, South Shields. (February 20.)

Tramway Rails. Freak Stevens, Town Clerk, Town Hall, Bradford. (January 28.)

Water Pipes. E. N. Mitchell, Clerk to the Council, Lansdown, Stroud. (January 25.)

TO CONTRACTORS.

IT WILL PAY YOU

to Subscribe to

THE MUNICIPAL JOURNAL.

Office: 12, SALISBURY SQUARE, LONDON, E.C.

Appointments Vacant.

Latest date for applications in parentheses.

Assistant Engineer (Calcutta). Rs. 450 per month. J. H. Apjohn, 17, Victoria Street, Westminster, S.W. (January 24.)

Analyst (Public). £200, &c. Trevor Edwards, County Hall, Wakefield. (January 30.)

Assistant Master of Workhouse. £60, &c. R. Greenwood, Acting Clerk to the Lambeth Guardians, Brook Street, Kennington Road, S.E. (January 24.) See advt. in No. 624.

Borough Engineer and Surveyor. Geo. Sell, Town Clerk, Town Hall, Luton. (January 31.)

Boys' and Old Men's Attendant. £25. E. Haslehurst, Union Offices, Park House, Bromley, Kent. (January 27.)

Clerk in City Accountant's Office. £1 per week. T. Holt, Town Clerk, Guildhall, Winchester. (January 26.)

Cook (Male). £30. S. J. Ennion, Deva Chambers, Newmarket. (January 23.)

Electrical Engineer. £400. W. M. Wilkins, Town Clerk, Town Hall, Battersea. (January 31.) See advt. in No. 624.

Female Assistant Inspector of Nuisances. £100. C. Sydney Watson, Town Hall, Walthamstow. (February 3.) See advt. in this issue.

Harbour Engineer. £200. T. J. Mercer, Harbour Office, Sligo. (February 15.)

Imbecile Attendant. £30. G. M. Howard, Poor Law Offices, Nottingham. (January 25.)

Inspector of Nuisances. £100. R. M. Barr, Clerk to District Council, Town Hall, Ventnor. (Jan. 31.)

Junior Clerk in Engineer's Department. £72 10s. E. H. Lister, Council Offices, Church End, Finchley. (January 31.) See advt. in this issue.

Labour Master. £30. Frank C. Morrison, 46, High Street, Reigate. (January 23.)

Master and Matron. £90 and £45 respectively. E. T. Westlake, Clerk to Guardians, 20, Portland Street, Southampton. (February 6.)

Medical Officer of Health. £60. F. S. Rix, Clerk to District Council, Beccles. (February 4.)

Nurse. £30. Chas. Taylor, Clerk to Guardians, Minster, near Ramsgate. (January 26.)

Nurse. £30. A. P. Oswin, Union Offices, Foleshill. (January 24.)

Nurses. £30 and £25. W. Adams, Clerk to Guardians, 13, Princess Square, Plymouth. (January 24.)

Nurse (Assistant). £24. J. A. Shepard, Clerk to Guardians, Town Hall, Tredegar. (January 23.)

Nurse (Charge), £26; Assistant Nurse, £20. E. A. Rigby, Clerk to Guardians, Ramsden Street, Huddersfield. (February 2.)

Nurse (Probationer). £5 (first year). G. H. Hibbert, Clerk to Guardians, 45, West Gate, Mansfield. (January 25.)

Record and Stationery Clerk. £120. H. Millington, Clerk of County Council, County Hall, Northampton. (February 6.) See advt. in this issue.

Relieving Officer. £130. F. Shelton, Clerk to Guardians, Lower Tottenham. (January 25.)

Relieving Officers (Two). £100 and £90 respectively. B. Challenor, Clerk to Guardians, Abingdon-on-Thames. (February 4.)

Sanitary Inspector. £100. W. Brook, Town Clerk, Borough Offices, Ossett. (January 24.)

Superintendent of Labour. £40. D. S. Blomfield, Union Offices, All Saints, Manchester. (January 24.)

Superintendent at Cemetery. £2 5s. per week. Francis Robinson, Town Clerk, Town Hall, Greenwich. (January 23.) See advt. in No. 624.

Surveyor, &c. J. Wadsworth, Thurlstone, near Penistone. (January 23.)

Surveyor and Inspector of Nuisances. £100. C. Blakeway, Clerk to District Council, Nuneaton. (January 23.)

Town Clerk. Salary not less than £1,500. J. G. Monro, Town Clerk, City Chambers, Glasgow. (January 31.) See advt. in this issue.

THE BEST JUDGES OF CIGARS

Now obtain their supplies at

BENSON'S, 61, St. Paul's Churchyard, London.

Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE.
15, Hanover Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

ROAD SCAVENGER.
F. COWLEY, C.E.,
Launceston, Cornwall.

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

**** *For conditions of insertion in this column address The Manager,* MUNICIPAL JOURNAL, *12, Salisbury Square.*

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION

IS FAR IN EXCESS

OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL, 12, SALISBURY SQUARE, LONDON.

IRON and WOOD FRAMED BUILDINGS (EVERY DESCRIPTION), BUNGALOWS, CHURCHES

AT LOWEST COST.

CHARLES LEATHER & SONS
(ESTABLISHED 1862),
114, MERTON ROAD, and RAILWAY WHARF,
WANDSWORTH, LONDON, S.W.

BLACKMAN

ELECTRIC FANS.

GOLD MEDAL
PARIS, 1900.

TRADE MARK

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

WILLIAMSON

ASHTON-UNDER-LYNE,
Telephone 320.

FOR
TICKETS
AND
PUNCHES
FOR
TRAMWAYS, &c.

TICKET NIPPERS.

TICKETS, DATING MACHINES, AND ISSUING CASES
FOR RAILWAYS, BATHS, &c.

SHEATH BROTHERS,

SQUEEGEE MANUFACTURERS,

Borough Councils and Railway Companies.

Borough Councils and Railway Companies.

87, CITY ROAD, LONDON.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment.
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

BONDS are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary SHIRLEY FUSSELL.

HEATING and VENTILATION of Hospitals, Asylums, Workhouses, Infirmaries, Public Buildings, &c.,

COOKING and LAUNDRY FITMENTS,

HOT and COLD WATER SUPPLY,

FAIENCE HOSPITAL WARD STOVES.

ROSSER & RUSSELL, LTD.

Where Steam Power is in use we utilise EXHAUST STEAM for WARMING by our Patent VACUUM SYSTEM, thus saving all expense for fuel.

Offices:
22, CHARING CROSS, WHITEHALL.
21, WEAMAN STREET, BIRMINGHAM.

Works:
QUEEN'S WHARF, HAMMERSMITH.

Telegraphic Addresses:
Lesorus, London.
Lesorus, Birmingham.

Telephone Numbers: 5210 Gerrard.
31 Hammersmith.
748 Birmingham.

EQUIFEX DISINFECTORS

SATURATED STEAM (Patent)

Adopted by the Metropolitan Asylums Board for the Brook Hospital; H.M. War Office for the ROYAL VICTORIA HOSPITAL, NETLEY, and by the Governments of India, Victoria, New South Wales, &c.; and the recent Disinfection Stations of the Boroughs of Lambeth, Fulham, Battersea, Brighton, &c., &c.

Rapidity in Operation. Absolute Immunity from Damage by Scorching. Economy in Fuel. Automatic Control and Record of the Work Done.

The only apparatus complying with the recommendations of the International Sanitary Congress, Buda-Pesth, 1894. Only Medal for Steam Disinfectors, Sanitary Institute Congresse, and highest awards wherever exhibited. Over 1,200 in actual use in all parts of the world.

SPRAY DISINFECTORS, for ROOMS, &c., reduces to a minimum the disturbance of Inmates. Cost a fraction of the time and expense required in use of SO_2, and disinfect with certainty. THOUSANDS IN ACTUAL USE.

THE PASTEUR FILTER

The only Filter awarded Grand Prix Paris, 1900.

OFFICIAL GOVERNMENT STATEMENT.
"Wherever the Pasteur Filter has been applied Typhoid Fever has disappeared.'

J. DEFRIES & SONS, Ltd., 146 & 147, HOUNDSDITCH, LONDON, E.C.

TICKET PUNCHES.

As adopted by Corporations, Tramways, 'Buses, Steamboats, &c.

ENQUIRIES SOLICITED.

THE TICKET PUNCH & REGISTER CO., Ltd.,
46, Queen Victoria Street, London, E.C.

Printed and Published by EDWARD LLOYD, Limited, 12, Salisbury Square, London, E.C.

352.65
MUNJ

THE MUNICIPAL JOURNAL

No. 626.—Vol. XIV. FRIDAY, JAN. 27, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. One Penny.

Official Advertisements.

BOROUGH OF HORNSEY.

TO PRINTERS AND STATIONERS.

THE Town Council of the Borough of Hornsey are prepared to receive TENDERS for PRINTING and the SUPPLY of STATIONERY for a term of One Year or Three Years, commencing on the 1st day of April, 1905.

Samples, &c., may be seen, and forms of tender and all information obtained, at the Office mentioned below, on any morning, between the hours of 10 and 12 o'clock, after a sum of two pounds has been deposited with the Town Clerk, which sum will be retained by the Council and deemed to be forfeited if a bona-fide tender is not made by the depositor. If a tender is made which is not accepted, the sum deposited will be returned, and, if a tender is accepted, such sum will be retained by the Council until the contract has been executed by the depositor, and will be forfeited in the event of his, or his sureties, failing or neglecting to execute such contract, or the bond accompanying it, within seven days after he or they respectively shall have been requested to execute the contract or bond respectively.

No tender will be considered except on the prescribed form.

Sealed and endorsed tenders are to be delivered or sent by post so as to be deposited in the tender box in the Town Clerk's Office not later than 4 o'clock p.m. on Monday, the 20th of February proximo.

The Council reserve to themselves the right to decline all, or any, or any portion of the tenders so sent in.

F. D. ASKEY,
Town Clerk.

Town Clerk's Office,
99, Southwood Lane, Highgate, N.,
16th January, 1905.

PARISH OF WILLESDEN.

ASSISTANT MASTER.

THE Guardians of the above-named parish require the services of an ASSISTANT MASTER at the Workhouse Infirmary, Acton Lane, Willesden.

Salary £40 per annum, rising to £50 by annual increments of £5, with furnished apartments, rations, and washing.

Candidates must have had experience in a similar situation, and be competent to receive, take charge of, and issue stores, &c., and keep all books, forms, and accounts of the Workhouse Infirmary.

The appointment will be subject to the provisions of the Poor Law Officers' Superannuation Act.

Forms of application may be obtained by sending stamped addressed foolscap envelop to my Office as below, and must be returned to me not later than Saturday, the 4th day of February, 1905.

By order.
J. HUTTON HAYLOR,
Clerk to the Guardians.

Guardians' Offices,
329, High Road, Kilburn, N.W.
26th January, 1905.

Official Advertisements.

METROPOLITAN BOROUGH OF WOOLWICH.

SUPPLY OF ROAD MATERIAL, FORAGE, STORES, &c.

THE Council of the Metropolitan Borough of Woolwich are prepared to receive TENDERS for the SUPPLY of the undermentioned ROAD MATERIAL, Stores, &c., within the Borough, from the 1st April, 1905, to the 31st March, 1906, and for Forage for Six Months from the 1st April, 1905 :—

1. Ballast, Sand, &c.
2. Brooms, Brushes, &c.
3. Cement.
4. Chandlery.
5. Disinfectants.
6. Drain Pipes.
7. Forage (for six months only from 1st April, 1905).
8. Harness.
9. Ironmongery.
10. Road Material.
11. Sewer Boots.
12. Sewer Iron Work.
13. Timber.
14. Veterinary Attendance.

The persons or firms whose tenders are accepted will in the case of all workmen to be employed by them be required to pay such rates of wages and to observe such hours of labour as are in accordance with the Standing Orders of the Council, a copy of which can be seen on application.

Forms of tender and any information can be obtained at the office of Mr. Frank Sumner, Borough Engineer, Maxey Road, Plumstead.

The persons or firms whose tenders are accepted will be required to enter into formal contracts.

The Council do not bind themselves to accept the lowest or any tender.

Sealed tenders, properly filled in, must be sent, addressed to me at the Town Hall, Woolwich, not later than 12 o'clock noon on Thursday, the 9th February, 1905, in envelope endorsed "Tender for ———."

Any samples which may be sent are to be delivered to the Borough Engineer, Council's Offices, Maxey Road, Plumstead.

By order. ARTHUR E[illegible]RYCESON,
Town Clerk.

Town Hall, Woolwich,
23rd January, 1905.

COUNTY BOROUGH OF SUNDERLAND

THE Corporation are prepared to receive LOANS of £50 and upwards on security of the Rates of the Borough, at six months' notice or for a fixed period.

For further particulars apply to Ernest Brown, Borough Accountant and Treasurer.

Sunderland.
13th December, [illegible]

PROMOTION in Penmanship. [illegible] with stamp for Prospectus [illegible] ENT (Prizeman and Medallist) College, Burnley.

Official Advertisements.

NORTHAMPTONSHIRE COUNTY COUNCIL.

RECORD AND STATIONERY CLERK.

WANTED, in the Office of the Clerk of the County Council a RECORD AND STATIONERY CLERK.

A practical experience in dealing with stationery and printing matters; also with the arrangement and filing of records and documents is essential, and experience in county or borough local government offices is very desirable.

A detailed list of duties and form of application may be obtained on request (accompanied by a stamped and addressed envelope) from the undersigned, and applicants are advised to deal in their application with their qualifications to carry out the particular duties specified.

The appointment will be terminable by one month's notice; the commencing salary will be £120.

Applications must reach the undersigned not later than the 6th February, 1905, together with copies of not more than three recent testimonials.

By order.
H. A. MILLINGTON,
Clerk of the County Council.
County Hall, Northampton.
16th January, 1905.

METROPOLITAN BOROUGH OF DEPTFORD.

TO VAN AND CART BUILDERS.

THE Council of the above borough invite TENDERS for Constructing and Supplying TWO VANS for conveying infected articles and returning disinfected articles.

The specifications of the vans and forms of tender can be obtained at the Borough Surveyor's Offices, 493, New Cross Road, between 10 and 4 o'clock (on Saturdays between 10 and 12).

Sealed tenders, which must be endorsed outside "Tender for disinfecting vans," must be sent to the undersigned, at the Municipal Offices, 20, Tanners Hill, Deptford, before 4 p.m. on Monday, the 13th of February, 1905.

It will be a condition attaching to the contract that the contractor shall pay such wages and observe such conditions of labour as have been agreed upon as fair by the representative organisations of the employers and of the operatives, and the contractor will be bound to observe, fulfil, and keep all and singular the stipulations contained in such condition, and for each and every breach thereof will have to pay as liquidated damages the sum of £5.

The Council does not bind itself to accept the lowest or any tender.

(Signed) VIVIAN ORCHARD,
Town Clerk.

Municipal Offices,
20, Tanners Hill,
Deptford, S.E.
26th January, 1905.

In replying to Official Advertisements, please mention the "Municipal Journal."

WILLIAMS & WILKINS

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

EXPANDED STEEL

For ARMOURED CONCRETE & FIREPROOF CONSTRUCTION

FOUNDATIONS.
WALLS.
FLOORS.
ROOFS.
RESERVOIRS.
SEWAGE TANKS.
CONDUITS.
BRIDGES.
GRAIN SILOS.
&c.

IT SAVES 75 PER CENT. IN BULK OF CONCRETE.

Write for Handbook on Practice, Tests, and Tables of Approved Formulæ or any other information.

Remarkable Example of Cement Plaster Work on Expanded Metal.

THE NEW EXPANDED METAL CO., Ltd.,

Telephone—419 Westminster. YORK MANSION, YORK STREET, WESTMINSTER, S.W. Telegrams—Distend, London.

EQUIFEX DISINFECTORS

SATURATED STEAM (Patent)

Adopted by the Metropolitan Asylums Board for the Brook Hospital; H.M. War Office for the ROYAL VICTORIA HOSPITAL, NETLEY, and by the Governments of India, Victoria, New South Wales, &c.; and the recent Disinfection Stations of the Boroughs of Lambeth, Fulham, Battersea, Brighton, &c., &c.

Rapidity in Operation. Absolute Immunity from Damage by Scorching. Economy in Fuel. Automatic Control and Record of the Work Done.

The only apparatus complying with the recommendations of the International Sanitary Congress, Buda-Pesth, 1894. Only Medal for Steam Disinfectors, Sanitary Institute Congresse, and highest awards wherever exhibited. Over 1,200 in actual use in all parts of the world.

SPRAY DISINFECTORS, for ROOMS, &c., reduces to a minimum the disturbance of inmates. Cost a fraction of the time and expense required in use of SO_2, and disinfect with certainty. THOUSANDS IN ACTUAL USE.

THE PASTEUR FILTER

The only Filter awarded Grand Prix Paris, 1900.

OFFICIAL GOVERNMENT STATEMENT.

"Wherever the Pasteur Filter has been applied Typhoid Fever has disappeared."

J. DEFRIES & SONS, Ltd., 146 & 147, HOUNDSDITCH, LONDON, E.C.

IN PREPARATION,

The MUNICIPAL YEAR BOOK, 1905.

OFFICIALLY REVISED—IMPROVED AND EXTENDED.

INVALUABLE TO COUNCILLORS & OFFICIALS.

EDWARD LLOYD, Limited, 12, SALISBURY SQUARE, LONDON, E.C.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON W.C.

THE MUNICIPAL JOURNAL
ESTABLISHED AS "LONDON" THIRTEENTH YEAR OF ISSUE.

No. 626.—Vol. XIV. JANUARY 27, 1905.

MUNICIPAL ACTIVITY ABROAD.

Adelaide is the Third Largest Municipality in Australasia, and is Setting a Splendid Example to Municipalities Abroad in Regard to Local Government and Civic Enterprise. Its Growth and Progress. Sanitary Condition. Municipal Music—a Comparison.

ADELAIDE, the third largest municipality in Australasia, and the capital of South Australia, may be described as a mushroom city. So far from being a collection of jerry-built shanties, however, it is, as our illustrations show, a handsome, well-laid-out city, and has most of the things which make for a full civic life. And these have all come in the sixty-five years that have elapsed since the land on which it now stands was marked out by survey boundary pegs.

How all this work has been accomplished without incurring an indebtedness of more than £60,900—for those were the official figures in November last—is worthy of attention even in England's up-to-date municipalities.

But before plunging into lessons from Adelaide it is necessary to give some idea of the present size and importance of the city. The area is 3,700 acres, including 1,751 acres of public parks, and 549 acres which are devoted to various ornamental purposes. There are fifty-nine acres of "squares" or boulevards, tastefully planted with trees, and embellished with statuary. In January, 1904, the population was estimated by the Registrar-General to be 39,625. Six years previously the population was 38,913, and during those half-dozen years, though the population has been slowly but surely increasing, the birth rate, it is a little curious to observe, has been slowly but surely decreasing, being 1,079 in 1898-99 and only 886 in 1903-4. But at the same time there has been an almost continuous decline of the total death rate since 1898-9. The rate for the past year is the lowest on record, and stands at 15·77, as against 17·95, the average of the preceding five years.

This low death rate is partly to be accounted for by the fact that the hygenic conditions of Adelaide are considered of the highest importance. For years past it has been and is by far the best drained and cleanest city in the southern hemisphere. Systematic sanitary inspection of a house-to-house character is made throughout the city. Special duties are also carried out, such as house disinfection, smoke observation, milk and food

KING WILLIAM STREET, ADELAIDE.
(The towered building on the left is the Town Hall; that on the right is the General Post Office.)

nsp ection, noxious trades supervision, inspection of lodging and boarding-houses, restaurants, markets, &c.

But there is one point in this connection on which the Corporation is open to criticism. The disposal of refuse removed from private premises continues to be by means of "tips" in various parts of the park lands. These are dealt with in a systematic manner under the supervision of the city surveyor, and the refuse is thoroughly covered every day with earth. Further, the picking of rags, &c., at the tips has been prohibited, and steps are taken to destroy all the rats at the tips. But such a method of treating refuse in a city, even under the best management, is, as the medical officer of health (Mr. T. Borthwick, M.D.), in his last report, readily admits, an unsatisfactory one, and a menace to health, both in the present and the future. A destructor must be looked upon as an essential part of the sanitary equipment of the city, and this is now being fully realised. But while a destructor is under consideration, it would be of great advantage to the public health to provide properly constructed carts for the removal of house refuse.

The terrible fire at the Alhambra Theatre in Chicago has stirred Australian local authorities as it stirred English. An inspection of the Adelaide Theatre Royal was made in July last by members of the City Council, the Fire Brigades Board, the officers of the Council, and Messrs. Chapman and Pollock. Every portion of the theatre was inspected — exits, entrances, stage, dressing-rooms, flies, cellars, stalls, dress circle, and gallery. The Council and the Fire Brigades Board were astonished at what they saw. There were wooden stairs to the dress circle, and a spirit store under the dress circle staircase; a cellar under the stalls, containing rubbish and inflammable matter; rubbish and old scenery under the stage, and naked lights under the stage. The stage had wooden supports; the proscenium was wooden instead of stone, and highly inflammable; the dome of the theatre was all wood, and inflammable; there was rubbish and old discarded stage properties up in the flies, and the dressing-rooms were constructed of wood, with no proper exit. The Adelaide Corporation felt, however, that before asking the owners of places of public amusement to effect alterations it should first put its town hall in proper condition. It has, therefore, incurred considerable expense in alterations to the town hall, which is now in the best condition as regards public safety that could be desired by the most arbitrary inspector.

ADELAIDE MUNICIPAL BUILDINGS.

During the past year the Corporation carried out this work of putting its Town Hall in order. In case of fire it would have been a veritable death-trap. The southern exit from the main hall, which was originally designed as an outlet from the kitchens, has been reconstructed, at a cost of £260. An old winding staircase has been demolished, which gives place to a new nine-feet straight stairway, with landings at intervals.

The amount of insurance on all Corporation properties, it may be added, is £58,011, which is distributed amongst various offices, for there is not there, as here, a municipal insurance system.

During last year the Corporation decided to cause an assessment to be made of all gas and electric light mains within the city. The Town Clerk (Mr. T. Geo. Ellery) had reported on the advisability of this course being taken, and a special committee carefully considered the matter, which was also pressed forward by the city solicitors. It was found that substantial contributions to the municipal treasuries are made in respect to rates from such sources in Melbourne and Sydney—where litigation resulted in favour of the municipal corporations—in Brisbane, and in the cities of Wellington, Auckland, and Christchurch in New Zealand. In Perth, West Australia, negotiations are in progress between the Municipal Council and the gas company as to the basis of assessment as the outcome of a Supreme Court decision.

Band concerts are now recognised as legitimate undertakings by municipalities in Australia. The Adelaide Corporation during the year has given free organ recitals and band concerts. The extent of this movement for municipal music is shown by a report recently issued by the town clerk of Wellington, New Zealand. In Melbourne, during the last four or five years, band performances in the various parks and gardens have been given, the expense being borne by the mayors. Indoor concerts are also given in the town hall at nominal charges for admission thereto, the entire proceeds being devoted to charity. At these indoor concerts bands or orchestras have been leading features. In Sydney, organ recitals are given in the town hall at small charges, and vocalists are engaged to assist. Free recitals are also given, but band performances have not, so far, been undertaken, although various proposals have been considered. In Brisbane, bands have played in the parks, under subsidy from the municipal body, at intervals since 1901. In Perth, the local authority has subsidised bands by inviting tenders annually for the service for the various parks. Not less than 20 performances are accepted, and the cost of each performance is about £6. In New Zealand, the city of Christchurch has, since 1902, had a subsidised band service, open-air concerts being given in the band rotundas. For the year ended March 31st, 1903, two bands were paid £50 each, and last year four bands were paid the same amount each, and the town clerk states that the concerts are largely attended and highly appreciated. Some 52 performances are given during the season. In Dunedin local bands are encouraged by the Corporation to play in the city reserves, and allowed to make collections for their support. Members of the bands are permitted, on these occasions, to travel on the tram cars without charge. The bands hold a combined fete in the Botanic Gardens once a year, and are allowed to charge the public for admission. In Auckland, the Corporation has not entered into any arrangement with regard to municipal music. The practice in Wellington has been that band-stands are provided, and local bands may use them upon notification to the Council, which also undertakes to advertise the programmes.

Considerable attention has been paid in Adelaide to the dust nuisance and its prevention. Westrumite—the properties of which are known to our readers—phenolic, and oil, as dust-layer, has each received consideration. The town clerk has also obtained particulars from the cities of Sydney, Melbourne, Newcastle, N.S.W., Brisbane, and Perth, W.A., as to the use of salt water for street watering purposes, and while there seems to be a concensus of opinion that it has a much greater capacity for laying dust than fresh water, he reports that there are many objections to it, amongst which are that it corrodes the water-vans and spreaders; drivers of motor-cars do not like it; it has a harmful effect on bright metal goods; and it is said to cause a "plucking up" of the road surface under certain conditions of the atmosphere, whereby the small particles of grit which bind the stones together and fill up the interstices are carried away, thus damaging the road.

For much of the information contained in this article we gladly acknowledge the valuable reports which have reached us from the Mayor of Adelaide (Mr. Lewis Cohen, M.P.) and Mr. T. G. Ellery, who have been worthy pioneers of municipal reform in South Australia.

LABOUR COLONIES.

What they May be Expected to Do, and How they May be Started. Large Colonies the Most Efficient. Graded, they Would Allow Ample Scope for Classification. How to Begin. Fifteen Colonies for England and Wales.

[FROM A CORRESPONDENT.]*

THERE are three things which may be reasonably expected from labour colonies when well organised and well equipped, namely, cure for many men, amelioration and greater economy for others, and necessary restriction for some. Cure, of course, in this case, means the drunkard turned to sobriety, the lazy man to industry, and the dependent to self-support. The amelioration and economy would come in cases too mentally weak to make their way outside an institution, but too good to be shut up in idleness within four walls. For these, and others of a poorer moral type, there would be the necessary restriction which would come from well-organised and efficient control. This would prevent them propagating their kind, from preying upon other classes of the community, and from being used by unscrupulous people for bad ends.

Which are the Best Colonies?

Views are various as to the best type of colony, and the most reasonable conditions. There are people who favour large State institutions, while others lean to small voluntary undertakings. There are those who want a graded system of colonies, with the State at one end and the voluntary institution at the other, and probably a board of guardians in between. The writer is in favour of groups of graded colonies run by State funds, under State control, but worked by philanthropic bodies. He is not in favour of colonies, such as those which are just now coming into existence in various parts of the country, under separate boards of guardians.

For the working of these colonies the State ought to find all the money necessary, under the strictest safeguards, and the religious bodies should find the workers. Charitable bodies should not be allowed to squander public funds, and they might do so unless it were well understood that their expenditure would be looked into with a lynx eye, and that foolish extravagance might lead to their being displaced. Having once settled this question of funds and supervision, the State should refrain from meddling with details. For the best results to be obtained, the management should have the freest hand. A sound principle is, "Get the right man, and then trust him." What the State may reasonably ask in return for its money is a good standard of management and results.

The work will not be a pleasant work. Only those who have tried it know the wear and tear which comes from a continual wrestle with inefficiency. Dealing with inefficients is not so trying if one is content for them to remain inefficient. The strain comes when an attempt is made to lift them into efficiency.

The point has been raised as to the religious difficulty—how can a Protestant body deal with Roman Catholics, or *vice versâ*. The answer is, "Let those who are willing do the work." The work is not so attractive as to draw men unless they have their heart in it; except the State should be so foolish as to offer bribes in the way of large salaries.

Grading.

Large colonies and graded colonies will allow ample scope for classification. It is difficult to give an exact list of the people who should be sent to labour colonies. The simplest thing is to begin with a few well-defined classes, and to add others as occasion serves. Here are some suggestions:—

GRADE THREE.

Some first offenders.

Some criminals other than first offenders. (Prison experts would best define these.)

Men sent to a colony as a sequel to imprisonment.

Some tramps.

Refractories from other colonies—including lazy people.

Prison conditions as to quarters and fare. Power to put in solitary cells, and to give bread and water diet. No liberty.

GRADE TWO.

Some tramps, not sufficiently bad to be sent to grade three.

Some first offenders, ditto.

Colonists on promotion from grade three, or degraded from grade one.

Deficients, either too old, or lacking in character or intellect. (Not imbeciles: these should be provided for elsewhere.) This class would be happier and more useful here than in a workhouse, and safer than outside.

Food and conditions simple. Life as pleasant as it can be made, with due regard to the good of the inmates.

GRADE ONE.

Men promoted from two and three.

Inebriates with some hope of reform.

Able-bodied, intelligent men, temporarily unemployed.

Probably, in a separate block, youths under 21 years of age.

Food and conditions as upon the present voluntary colonies. No better. A hearty, healthy, hopeful life.

It has been suggested that there should be a kind of inter-working control over these triple colonies, in which the lowest should be run by prison authorities, and the highest by voluntary bodies, with boards of guardians' colonies between. This would be chaos, and would admit the very bad principle that the ablest men should do the easiest work.

The triple colony should be on a spacious area—there is, at present, a good deal of unproductive land in the country, which could be utilised. Situation is also a factor in success; low, damp places militating against good results, especially with inebriates. The buildings should be simple, but good. Jerry building does not pay, and worries administrators. There should be one single unit of authority for each group of three, and the most should be made both of recreation and religion.

The classification in these three grades might be fairly elastic at first, and gradually allowed to stereotype itself according to experience. And the period of detention in any one grade should depend entirely on conduct and aptitude, and should never be for a fixed time; so that a man might feel the rapidity of his rise or fall to be entirely dependent on his own efforts.

The conditions in the middle grade colonies might be made sufficiently good for the "permanents," of whom there would be many, to continue there without hardship, but without luxury; and for them, as well as for others, the door of hope would always be open if they were able to avail themselves of it.

To all these colonies men might come as now, or be committed on a magistrate's order, and in no case should a man be permitted to leave unless the authorities were satisfied that he had a prospect before him.

How to Begin.

I.—Define the classes to be dealt with. Others may be added as experience dictates.)

II.—Make as complete a census as possible of these classes.

III.—Begin with about five or six centres. Where these might be advantageously situated is set forth below.

IV.—Pass any necessary legislation to make the law fit the new conditions.

Belgium, with a population of nearly seven millions, has five colonies, two at Bruges, for women; and three near Antwerp, for men—practically two groups, on the three-grade basis suggested above. In England and Wales—and the suggestion is merely tentative—the country might be mapped out into five districts, each district having its group of three colonies, no provision being made for women. London, Bristol, Birmingham, Liverpool and York would serve as convenient centres for the following groups of counties.—London: Norfolk, Suffolk, Essex, Cambridge, Hunts, Beds, Bucks, Oxon, Berks, Hants, Surrey, Sussex, Middlesex, Kent, Herts, and London. Bristol: Cornwall, Devon, Dorset, Somerset, Wilts, Gloucester, Hereford, Monmouth, Brecon, Radnor, Cardigan, Pembroke, Caermarthen, and Glamorgan. Birmingham: Shropshire, Stafford, Worcestershire, Warwickshire, Northamptonshire, Rutland, Leicestershire, and Derbyshire. Liverpool: Anglesey, Merioneth, Montgomery, Carnarvon, Denbigh, Flint, Cheshire, Lancashire, Westmoreland, and Cumberland. York: Nottinghamshire, Lincolnshire, Yorkshire, Durham, and Northumberland. The colonies need not be within 20 or 30 miles of the towns indicated. They are simply named as natural centres for their respective districts, and many advantages arise from proximity to a large town; railways converge upon them, thus making the colony accessible to the district; supplies can be easily and cheaply obtained, while a large proportion of the colony inmates would be drawn from these large centres.

As to this grouping being upon a population basis, as well as geographically, the following table will show:—

	Population.	Paupers.	Per cent.
London district	11,500,000	329.400	·0286
Bristol ,,	4,250,000	135,000	·0317
Birmingham district	4,250,000	108,500	·0255
York ,,	6,500,000	142,400	·0219
Liverpool ,,	6,000,000	129,800	·0216

It will thus be seen that the area attached to London, so far as population and panperism are concerned, is equal to two districts, and the nucleus for its necessary two groups of colonies already exists at Hadleigh and Lingfield. As to the other four districts, the population and pauperism in each instance is sufficient to justify a group of colonies. It is worth notice, in passing, that as far as the percentage of pauperism to population is concerned there is not much variation, but it is highest in the west.

If Hadleigh and Lingfield were utilised as the London centres, the whole national scheme might be put into operation by the founding of four new groups of colonies, and these, with State assistance, the Salvation Army, Christian Social Service Union, and Church Army might be prepared to undertake.

Conclusions.

I.—Labour colonies offer a more intelligent and less wasteful method of dealing with many distressed classes of the community than those at present in vogue.

II.—They may be made an important factor in the settlement of the tramp question.

III.—They offer a more hopeful and economical means of dealing with lads who have never had a chance, and with men who have missed their chances.

IV.—The State should find the funds, and not be stingy, but there should be a rigorous check on extravagance.

V.—The State should not interfere in details, but should be content with righteousness and results.

VI.—The more elastic the system the higher the results.

VII.—The absolute need of religion and ideals.

VIII.—The State is best able to deal with money; their religious agents with men.

IX.—The great value of grouped and graded colonies, under one head, as a means of discipline and an incentive.

X.—The great need of the right men as administrators.

The best results will be obtained where the work is done on the highest level. Do not let the colonists be talked of, or thought of, as pariahs and wastrels. Let them be thought of as brothers, and treated as men. Let Christians give themselves to this work with a great redemptive purpose, and in the spirit of their Master!

* The writer has made a study of this question for some time, and has been actively engaged in the management of a labour colony for the last three years.

EDUCATIONAL NOTES.

Compromise at Bradford. Essex and Teachers' Houses. Report on Irish Education. Teachers' Agreements at Plymouth. Married Mistresses at Plymouth and Tipton. Rural Education. Whitehall Appointment. Slough and its Evening Classes. Labour Certificates at Stafford. Higher Elementary Education and School Desks. Yorkshire Wisdom in Secondary Education.

Bradford.—An effort is being made in Bradford to effect a compromise on the qnestion of the Roman Catholic pupil teachers' centre on lines which have found acceptance in Leeds and Birmingham. At a meeting of chairmen of education sub-committees a scheme was drawn up proposing that the centre should be controlled by a sub-committee of six, four of the members to be appointed by the Education Committee and two by the trustees of the centre. An arrangement of this sort has proved satisfactory to the Roman Catholics of Leeds and Birmingham, and it is hoped by this means to find a way out of an unpleasant situation.

Essex.—The Education Committee has further considered the question of the rents to be paid in respect of teachers' houses, and has now settled the amounts it considers fair. In a large number of cases the committee's proposals have been agreed to; negotiations are pending in other cases. The committee has endeavoured to settle each case in such a way as to balance fairly the claims of all parties in the light of (1) the salary attaching to each appointment; (2) the accommodation afforded; and (3) the value of house accommodation in the locality.

Irish Education.—The National Board of Commissioners has jnst issued the seventieth annual report upon elementary education (c.d. 2,230), price 4½d.

Leyton.—The Education Committee has arranged for the distribution of free breakfasts and dinners to a number of poor children attending the schools, and has authorised the use of the school corridors and rooms for these meals to be given, under the supervision of the teachers.

Lowestoft.—The Education Committee has considered the question of fixing an educational year as required by Regulation 1, Schedule 3 of the Code; also the advisability of altering the school year to correspond therewith, and recommended that a uniform educational and school year be fixed for the whole of the elementary schools in the borough, and that application be made to the Board of Education to approve 1st September for the commencement of such respective years.

Maidstone.—The Education Committee has agreed to abolish all fees in the public elementary schools.

Norfolk.—The Education Committee has decided that instead of sending the cheques for all teachers' salaries in the same school to the correspondent or chairman of managers for distribution, they be sent to the head teacher of each school in all cases in which the managers specifically ask for this procedure to be adopted.

Plymouth.—The terms of the agreement which have been accepted by the Education Committee for teachers in non-provided schools are similar to those embodied in the agreement which applies to teachers in the provided schools, and include a clause that those who accept service under it shall not be required to perform any duties except such as are connected with the work of the school, or to abstain outside the school hours from any occupations which do not interfere with the due performance of their duties as teachers of the public elementary schools. The education authority having decided that the marriage of a woman teacher should terminate her engagement at three months' notice, the Education Committee has declined to accede to a request of the foundation managers of Crompton School to be allowed to retain the services of an assistant teacher under the condition stated. The Education Committee has decided to consult the head teachers of the schools with respect to the practicability of incorporating hygiene and temperance in the school time-table.

Rural Education.—The President of the Board of Education has appointed Mr. T. S. Dymond (principal lecturer at Chelmsford Technical Laboratories) as an inspector, and to act as special adviser in matters of rural education.

Slough.—Owing to the small numbers attending the evening classes, the Stoke Road classes have had to be closed. By an order of the County Education Committee a school must be closed if the average attendance falls below a certain number, or else the master is fined every time the attendance fails to come up to the regulation.

Staffordshire.—The Board of Education has stated, in reply, that an education committee is entitled to withdraw a certificate entitling a child to partial and total exemption from school attendance if satisfied that the child is not beneficially employed.

Surrey.—It is calculated that the county education fund will benefit to the extent of £10,000 a year, solely due to the raising of the percentage of average attendance in the schools to 90. At the present time the attendance has risen from 80 to 86 per cent.

Southampton.—The Education Committee has passed the following resolution:—"That, in the opinion of this committee, the time has arrived when the local education authority should proceed to further co-ordinate education by taking advantage of the provisions of the code as to higher elementary schools; and that the Works and General Purposes Sub-committee be requested to bring up a report on the subject."

Swansea.—Dr. Rice Morgan, the medical officer of the Education Committee, emphasises the importance of a desk and seat being so constructed that the scholar should be able to sit comfortably with a back rest as support for the spine. The height of the desk should correspond with the size of the scholar. In many a class-room scholars are obliged to place the desks in such a position that they have to sit with their backs to the windows, and from this there necessarily follows a greater strain upon the eyes, where, if there is any tendency to disease, a serious danger results. The best position of light should be sideways, and preferably from the left.

Tipton.—A communication was read at the Education Committee from the Board of Education, sanctioning the appointment of married women as teachers where there was a dearth of teachers, owing to their experience in dealing with children, and the probability of their continuing longer in the profession.

Wiltshire.—The Education Committee has agreed that managers are to be held responsible for expenses as follows:—Repairs or alterations to structure required by the committee; upkeep of fabric of school; all external repairs, including repairs to walls, fences, chimneys, playgrounds, paths, yard-gates or doors, roofs and drains; all external painting and pointing; repairs to ventilators and bell turrets; water and gas meters.

Yorks (West Riding).—The Education Committee has expressed its concurrence with the following resolution of the agricultural council:—That this council does not view favourably the proposal to establish a secondary school specially for intending farmers; that it is of opinion that the best preparation for the agricultural courses at Leeds and Garforth is the ordinary general education at good secondary schools, and that it thinks that the question of the provision of secondary schools, and the means to be adopted to secure the attendance of the sons of farmers, should receive the careful attention of the local education authorities.

PAVING WORKS.

HOW THEY SHOULD BE PAID FOR.

THE method of paying for paving works is being fully discussed just now in municipal circles. The London County Council recently circularised the metropolitan boroughs on the subject. and now the Finance Committee of the Westminster City Council has drawn up an interesting report.

It seems to be clear (says the committee) that the expenditure which has to be incurred yearly for the necessary upkeep of roads is more in the nature of a charge that should be borne by revenue account, notwithstanding that it has hitherto been the practice to regard the cost of paving work as capital expenditure to be spread over a period of years, and that borrowing for the large expenditure recurring annually is expensive to the extent of the interest on the outstanding loans, without any compensating advantage accruing.

In Westminster, at the present time, the average annual cost of new paving and renewal of worn pavements, exclusive of repairs, equals the annual instalments paid in reduction of existing paving loans, exclusive of interest thereon. Thus, while on the one hand the Council is paying off paving loans at the rate of some £30,000 a year, it is, on the other hand, borrowing a like sum for paving purposes. In addition. the Council has to pay interest on these loans amounting to between £4,000 and £5,000 a year, which in practice has become a permanent charge upon the rates for which there is absolutely no return whatever. The result is that for every £100 worth of paving work defrayed by loan the Council is paying, in round figures, from £110 to £120, according to the period over which the repayment of the loan extends, and the rate of interest, which in the past has varied from 2¾ to 3¾ per cent. per annum.

If the principle of paying for paving works out of revenue were adopted, and a method could be devised by which the charge for relaying carriageways would be approximately equal annually, the ratepayer of one year would not be prejudiced to a greater extent than the ratepayer of another year, except that for a period following the change of system the ratepayers would have to bear the charges in relation to paving work previously executed in addition to the cost of new work, until the loans were repaid.

In the past, the annual expenditure on paving works has varied widely, but it might be equalised by forming a paving renewal fund, to which a sum representing the average annual cost of paving works, other than repairs, would be transferred annually. This fund would be debited with the cost of new paving and renewal of old paving. Any surplus would be carried forward to the fund the following year, and in the meantime would bear interest. Any deficiency could be made up out of the current rate, either directly or by appropriating sums provided but not required under other heads, or by debiting the fund in the following year. The adoption of the system of equalising would be facilitated if it could be so arranged that the repaving of the most important and costly streets, such as Whitehall, the Strand, and Piccadilly, should recur in rotation, so that not more than one of those streets should be repaved in any one year.

After summarising the County Council's letter, which has been already dealt with in our columns, the committee recommends:—

> That the principle of dispensing with loans for paving works, and of providing in the estimates year by year an approximately equal sum for such works, be approved, and that we be authorised to form a paving renewal fund, and to take such steps as may be necessary to give effect to the scheme.

"IT'S an ill wind," &c. It seems that the L.C.C. electric tramcars benefited considerably by the fog in London a few days before Christmas. Mr. Allen Baker, chairman of the Highways Committee, told the Council on Tuesday that during the two worst days, when there was a virtual suspension of general street traffic, the cars took in passenger fares as much as £2,500.

HOUSING PROGRESS.

The Official Monthly Record of the National Housing Reform Council. Local Authorities and Their Duties in Regard to Slums. How They have Performed them. The Varying Methods of Slum Clearance. What Might be Done.

FOR many years Birmingham reformers have been asking for the clearance of what is admittedly the worst slum area in the city—the Floodgate Street area. The population of this area is nearly 7,000 (of whom more than 2,500 are in receipt of charitable relief or are the subjects of the attention of public authorities in the city). The death rate (1902) was 32 per 1,000 as against 18 per 1,000 for the whole of the city, and the infant mortality rate was 250 per 1,000, or 1 in 4 of all the children born in the area.

In asking for action in regard to this area, Dr. Robertson, the Birmingham medical officer of health, is, therefore, only fulfilling his duty as an efficient and zealous guardian of the public health, and it is to be earnestly hoped that the Birmingham City Council will now decide to take the vigorous action for which Dr. Robertson rightly pleads.

The subject of the best methods of slum clearance is one which is of interest to housing reformers all over the kingdom, and in response to the wish kindly expressed by the editor of *The Municipal Journal* I venture to give the following brief outline of the powers already possessed, and a series of suggestions as to their usage.

The Duty of Local Authorities.

It will not be too much to say that if local authorities in the United Kingdom had, during the last ten years, performed the duty laid upon them in Sec. 32 of the Housing Act of 1890, the slums which burden our towns and villages would have completely disappeared.

The section is as follows:—

> 32.—(1) It shall be the duty of every local authority to cause to be made from time to time inspections of their district, with a view to ascertaining whether any dwelling-house therein is in a state so dangerous or injurious to health as to be unfit for human habitation, and, if on the representation of the medical officer, or of any officer of such authority, or information given, any dwelling-house appears to them to be in such state, to forthwith take proceedings against the owner or occupier for closing the dwelling-house under the enactments set out in the third schedule to this Act.

No loophole is left for inactive local authorities to excuse themselves. It will be noticed that the first words are, "It shall be the duty," &c.. &c.

Sec. 30 of the same Act definitely places equal responsibility on the medical officer of health:—

> 30.—It shall be the duty of the medical officer of health of every district to represent to the local authority of that district any dwelling-house which appears to him to be in a state so injurious to health as to be unfit for human habitation.

The Performance of These Duties.

Have these duties been adequately performed? There can only be one answer to this question, viz., that in probably the majority of cases local authorities regard the work as optional, and not as a duty at all. How many local authorities, for instance, have even prepared a list of the insanitary houses within the areas under their control? How many local authorities maintain a sanitary staff sufficiently large to enable the statutory duties devolving upon them to be properly performed? It is not enough that any complaint should be speedily investigated, or that a few houses here and there should be closed. Every council should possess a map in which every slum area should be marked down for clearance, and every slum house for destruction—sooner or later.

To adequately perform the duties imposed under the two sections of the Housing Act already quoted, two lines of action are absolutely essential:—

(1) A periodical inspection of all the houses in a council area should be made.

(2) Councils should prepare and publish a clear statement of the number and position of all houses below a right sanitary standard.

In many rural districts an inspection of all the houses would involve a very great increase in the sanitary staff, but for every shilling expended in this way, pounds would be saved in doctors' bills to poor and rich people alike, and in the cost of infectious disease hospitals—a cost which has to be borne by the ratepayers for "locking the stable door when someone has stolen the horse."

As it is, questions of drainage and water supply are neglected until an epidemic of disease calls public attention to the need for better sanitation; houses are overcrowded and rapidly degenerate into slums without any adequate attempt being made to administer existing bye-laws or to frame more efficient bye-laws; new houses are built under building bye-laws which insist on the performance of some trivial details and overlook such vital matters as the provision of adequate garden space and the insistence on a proper and well-organised water supply.

In the large towns also these primary duties are neglected, except in some honourable instances, of which Liverpool is one.

House to House Inspection at Liverpool.

Quite recently the Housing Committee of the Liverpool Corporation gave instructions to the Corporation officials to make a street-to-street inspection of the whole city. It was then found that, despite the fact that the Corporation had demolished about 8,000 houses under the Liverpool Sanitary Amendment Act of 1864, the number of "structurally insanitary" houses still remaining to be dealt with was about 9,900. "These structurally insanitary houses are generally back-to-back"—says Mr. Turton, the deputy-surveyor—"without any through ventilation or yard space whatever, and, being placed in courts, there is an entire absence of a circulation of air, and usually only one convenience for about five dwellings."

When the committee realised the enormous extent of the work to be done, it decided to deal with the problem at the rate of about 700 houses per year.

Every council in the kingdom should likewise possess a record of all the slum houses to be dealt with, and should, moreover, after full deliberation, prepare a scheme for the gradual "wiping out" of these centres of human wretchedness and disease.

Rival Methods of Slum Clearance.

When the members of councils have made up their minds to clear slum areas or to secure the destruction of insanitary houses two rival methods of procedure present themselves.

(1) The preparation of a scheme for dealing with an unhealthy area under Part I. of the Housing Act.

(2) Application for closing orders against the owners of the property.

The first method of procedure is much the more costly of the two. In practice it means that the council concerned purchases all the land and houses in the area, and then, after demolishing the houses, erects accommodation for the dishoused people. Some millions of public money have been spent on schemes under Part I. of the Housing Act or under similar powers granted to Corporations in special Acts of Parliament. It is probable, however, that, despite the large expenditure involved, the results have more than justified it. If it be a good piece of public work to build a fever hospital to cure people of disease, it is an even better piece of public work to destroy a slum and prevent the spread of epidemic disease. Nevertheless, the cost of administering Part I. of the Act is so great that the second line of procedure now finds increasing favour.

The most valuable example of slum clearance by means of closing orders is undoubtedly that of Hull. From June, 1898, to May, 1902, no less than 1,425 houses, in about fifty different streets, were "represented" under Part II. of the Housing Act as unfit for human habitation, and the magistrates of Hull were asked to issue closing orders against the owners. Dr. J. W. Mason, the medical officer of health, was able by this procedure to secure the actual closing of no less than 362 houses.

The great drawback to procedure under Part II. is that the decision as to the "fitness of houses" for "human habitation" is left to the bench of magistrates. It is entirely within their discretion as to whether a closing order shall be issued or not. The local authority has no power to appeal against the decision of the magistrates, although the owner of the property has a power of appeal to Quarter Sessions against a closing order when it has been granted. In many cases the magistrates have permitted the owners of property to make some small structural alterations in their property, and have then granted it a new lease of life. In the majority of cases magistrates certainly show a great reluctance to issue orders for the destruction of insanitary property. Many of them seem to forget that the health and immunity from disease of the poorest tenant should be regarded as of far greater importance than the property in bricks and mortar of the slum landlord.

Some Practical Suggestions.

Probably the worst practical line of action for local authorities to take is that of combining the procedure of Parts I. and II.

Wherever a large area has to be dealt with, it should be secured by the Corporation under Part I, and every attempt made to keep down the cost of purchase. Sec. 21 directs the arbitrator to base his estimate of the compensation on the "rental which would have been obtainable if the dwelling-house was occupied for legal purposes, and only by the number of persons whom the dwelling-house was under all the circumstances of the case fitted to accommodate without such overcrowding as is injurious to the health of the inmates."

The payment of compensation must be regarded as the price the present generation has to pay for the municipal neglect of earlier generations. The lesson in social economy will be cheap at the price if ratepayers will learn the much-needed lesson that all new housing areas should be properly planned.

Small groups of slum houses should be dealt with under Part II., and a regular series of applications for the closing of these houses should be made to the bench of magistrates.

Some town councils, e.g., Newcastle-on-Tyne, Darlington, and Paisley, have power under special Acts to issue closing orders, and to throw the onus of appeal to the bench of magistrates upon the owner of the condemned property. Such a power should be granted to every local authority, and probably will be given before many years have passed.

Meanwhile the present powers should be more efficiently used, and a healthy public opinion brought to bear upon those magistrates who place the "rights of property" before the "rights of healthy life."

In the above brief statement of the methods of slum clearance no attempt has been made to discuss the vexed question as to whether the people dishoused should be rehoused on the cleared area, or whether accommodation should be provided at the borders of the town.

This important point will be dealt with in a later article.

I have endeavoured to show that the powers already possessed by councils are far more important than many councillors imagine, and also that Parliament has clearly imposed the duty of slum clearance on the health authority for each area. It will, therefore, be only fair to say that the average citizen is equally to blame. Under Sec. 5 of the Housing Act, 12 ratepayers have power to make a representation to the medical officer of health asking for an inquiry into the condition of any area, and on the receipt of such a representation the medical officer must make such inquiry, and report upon it.

Probably there are not more than a dozen towns in England in which ratepayers have availed themselves of this power to stimulate action. I may add that the National Housing Reform Council has prepared special forms to be signed by ratepayers asking for these inquiries, and copies of these will be gladly sent to those who desire them, on application by post, to 432, West Strand, London, W.C.

HENRY R. ALDRIDGE.

OFFICIAL & PERSONAL.

A SOUTHEND FAREWELL.
THE NEW ACTON ACCOUNTANT.

A FAREWELL to Mr. Samuel Lord, the new accountant to the Acton Urban District Council, was given by the officials of the Southend-on-Sea Corporation, at a smoking-concert held on Thursday, 12th instant—Mr. Charles E. Tweedale, borough accountant, in the chair—supported by the town clerk, borough surveyor, medical officer of health, electrical engineer, piermaster, clerk to the justices, and the district rate collector.

An excellent programme was provided, and the evening's enjoyment enhanced by the presentation to Mr. Lord of a beautiful silver tea and coffee service, with a tray suitably inscribed, by his brother officers, as a mark of their esteem and regard.

The Chairman, in making the presentation, said that Mr. Lord had been assistant borough accountant for seven years, bringing with him from Rochdale an excellent reputation, and now he was leaving with an even more brilliant one. When Mr. Lord came to Southend the staff in his (the Chairman's) department numbered five, but it had increased to eighteen at the present time, and the work had increased in proportion. There could be no question as to Mr. Lord's ability, and his work had been not only very hard, but exceptionally so. Mr. Lord was one of those gentlemen who were not satisfied with ordinary distinction, for last year when he sat at the final examination of the Society of Accountants and Auditors he obtained a high place on the honours list. Nothing that he (the speaker) could say could prove more conclusively the esteem in which Mr. Lord was held than the manner in which the officials had subscribed to the testimonial—in fact, he might tell them that the amount contributed constituted a record for a presentation to a Corporation official. It was impossible to say too much in praise of Mr. Lord. He had exceptional ability, which was sufficient warrant for anything that ought to be said in his favour. He hoped that Mr. and Mrs. Lord would live long to prove the utility of the present, and would remember the givers, and that the days he had spent in Southend would not be the least pleasant days of his life.

The Town Clerk and the other chief officials also spoke eulogistically of Mr. Lord and his work.

Mr. Lord on rising to reply was received with loud cheers. He thanked them most heartily, he said, for the presentation. He should prize the gift not only for the value itself, but also for the sentiment it embodied. He was pleased to be able to say that he thought he could lay claim to the goodwill and good fellowship of all those present. He could not have done what he had done without the assistance of a loyal staff and the other borough officials. He had always been shown the greatest consideration by everyone. He knew for a fact that there was not another borough in the kingdom where better fellowship prevailed among the officials than in Southend, and he hoped that wherever he went he might find such happy relations amongst his colleagues. He assured those present that he would welcome them most heartily if they should ever visit him at Acton.

Mr. and Mrs. Lord's health was then drunk with great enthusiasm, musical honours being accorded.

Votes of thanks to the chairman for so ably presiding and to the artistes for so kindly contributing to the evening's entertainment brought the proceedings to a close.

PRESTON MAGISTRATES' CLERK'S SALARY.

A FEW weeks ago Mr. Thomas Dodd was appointed clerk to the Preston borough magistrates, in succession to his brother, and the justices recommended that his salary should be £1,000 a year.

Exception was taken at the last meeting of the Town Council to the salary being paid, and the fixing of the amount was referred to the Finance Committee. This body has now decided to recommend the payment of £800 per year.

BURNLEY TOWN CLERKSHIP.

THIS week the General Purposes Committee of the Burnley Corporation unanimously decided to recommend the appointment of Mr. Peregrine Thomas, now town clerk of Leigh, to be town clerk of Burnley, in succession to Mr. Steele Sheldon, who, as our readers know, has been appointed town clerk at Wimbledon. The salary of the post is £700 a year, rising to £900. Mr. Thomas, who is 41 years of age, is a duly admitted solicitor. He was appointed town clerk of Leigh in 1897, and his present salary is £600 per annum. His articles were served with Mr. J. Davies Williams, town clerk of Southport.

With the exception of one year, which he spent in the office of Mr. J. Aeron Thomas, solicitor, Swansea, he has been engaged exclusively in municipal work. In 1882 he was appointed by the Milford Haven urban sanitary authority, out of a large number of applicants, as its clerk. The town was governed under a series of local Acts, together with the Public Health Acts and Commissioners Clauses Act, and the Council consisted of fifteen members. There were six standing committees, all of whose meetings he personally attended. The Milford Haven Council owned the gasworks, waterworks, cemetery, landing stages, toll bridges, and a ferry.

The making of valuation lists conveyancing, and the levying of the rates formed part of his duties. During his term of office the Milford Docks were constructed, which necessitated the laying of a new main sewer, the

MR. PEREGRINE THOMAS
(Burnley New Town Clerk).

stopping up of old roads, &c. The interests of the town and those of the Milford Docks Company frequently came into conflict, and it became necessary to oppose the company's Parliamentary Bills, and in this connection, as well as owing to the confirmation of some of the Council's Provisional Orders being opposed in Parliament, he acquired a valuable experience in parliamentary practice. On resigning his office in 1891, Mr. Thomas was made the recipient at the hands of the Council of an illuminated valedictory address and a purse of gold.

In 1891 he was selected, out of some 80 applicants, as assistant to the town clerk of Southport, and subsequently became assistant solicitor to the Corporation. It would be impossible in the space at our disposal even to outline the work he accomplished in this exceptionally progressive town. Amongst other duties, he took a full share of the routine work of the town clerk's office, municipal registration, the preparation of the burgess list of voters, the conduct of elections, and the preparation of numerous legal reports on a vast variety of matters. He had, from the first, sole charge of the preparation of the police-court, magisterial, and county-court work, and regularly acted as committee clerk from the beginning of his service under the Corporation. He also amplified his experience in Parliamentary practice. Out of 24 applicants he was selected to his present position.

This week the choice of the committee lay between Mr. Thomas, Mr. H. L. Parry, assistant solicitor to the West Riding County Council, and Mr. Cooper, solicitor, Blackburn.

SCARBOROUGH'S NEW MEDICAL OFFICER.

AT a meeting of the Sanitary Committee of the Scarborough Town Council last week, Dr. John Knight, M.D., Glasgow, D.C.L., Cambridge, assistant medical officer of health, Glasgow, was appointed medical officer of health for Scarborough, at a commencing salary of £350 per annum, which increases by annual increments of £25 to £400.

Dr. Knight is 31 years of age. He was appointed assistant medical officer of health, Glasgow, in 1900, and in August, 1903, he discovered an outbreak of enteric fever associated with shellfish, and was appointed special commissioner by the Local Government Board to investigate and report upon it.

There were originally 43 applications for the Scarborough post, and the full committee interviewed five, viz., Dr. Duncan Forbes, assistant medical officer of health, Manchester; Dr. Knight, the successful candidate; Dr. Spencer J. Low, medical officer of health, Dewsbury; Dr. Arthur E. Porter, assistant medical officer of Leeds; and Dr. C. Grant Pugh, assistant medical officer of health at the Park Fever Hospital, London. The final vote rested between Dr. Knight and Dr. Porter, of Leeds.

BRIGHTON TELEPHONES.
An Inaugural Conversazione.

The Brighton Corporation telephone department, at the end of its most successful first year of life, held an inaugural conversazione at the Old Ship Assembly Rooms, under the auspices of his worship the Mayor (Mr. Alderman F. Blaker), on the 13th inst.

It is not to be wondered at that the staff which has been instrumental in giving to Brighton one of the finest telephone services in the kingdom acted up to its reputation in providing a most enjoyable programme. In addition to the many enjoyable dances and some high-class talent, an attractive conjuring exhibition was provided, while several prominent artistes from the Grand Theatre pantomime kindly gave their services.

Naturally, the telephone undertaking itself was brought into requisition in adding to the attraction of the evening, as, by the kind permission of Mr. Councillor Beryl, the proprietor of the Theatre Royal, and also a member of the Telephone Committee, the music of "The Girl from Kays" could be heard on the electrophone, and was much requisitioned and appreciated.

Mr. D. J. Barnes, the very popular manager of the telephone undertaking, with Mrs. Barnes, very ably did the honours of the evening in receiving the guests, &c.

DOVER OFFICIALS DINE.

THE fourth annual dinner and re-union of the Dover Corporation officials took place on Thursday evening last at the Esplanade Hotel, when about 45 sat down to a capital spread.

The Mayor (Sir William H. Crundall, J.P.) occupied the chair, and was supported by the borough coroner (Mr. Sydenham Payn), the borough treasurer (Mr. G. Lloyd), the borough engineer (Mr. H. E. Stilgoe), Mr. R. E. Knocker, Drs. Ormsby, Cheale, and Elliot, Messrs. East, Woodman, Worsfold, Birch, Sutton, Carden, and others. The programme of the smoking concert which followed was of the best character, and was taken part in by Messrs. J. R. Eaton, Sutton, Young, Rubie, W. H. Green, and Edgar Berte, who rendered their selections in pleasing and efficient manner.

The toasts of "The King," "The Mayor and Corporation," and "The Officials" were given and suitably responded to. The borough engineer, in proposing "The Mayor and Corporation," touched lightly on a subject of great importance to all municipal officials throughout the country, namely, superannuation. He casually mentioned that in the neighbouring town of Folkestone they were drawing up a scheme to present to the Town Council, without waiting for the proposed Bill being brought before Parliament.

He claimed that if contributions from each official were taken, and something added thereto by the Corporation, it could be made self-supporting, besides making the officials stay longer in their situations without looking out for better-paid appointments. These remarks were loudly punctuated by applause during their delivery.

NOTES AND ANSWERS.

Procedure of Local Authorities in Taking Over Private Streets, and the Effect of the Act of 1892. The Watch Committee is on the Same Footing as other Committees of Corporations in Respect to the Exclusion or Non-Exclusion of General Councillors. How a General District Rate is Assessed, Made, and Levied.

Extract from a letter received this week:—"The great care that is manifestly exercised in replying to the queries sent to the MUNICIPAL JOURNAL is in marked contrast to the curt manner in which many of the queries in other local government papers are answered."

613.—**WEIGHTS AND MEASURES ACTS—Local Authority under—Qualification for Inspectorship.**—Will you kindly inform me what local authorities are responsible for the carrying out of the Weights and Measures Acts, by whom inspectors under the Acts are appointed, and what are the qualifications for office?—"NEMO."

The local authorities under these Acts are county councils in the case of counties, and in the case of boroughs having a population of 10,000 or over, the councils of boroughs having a separate Court of Quarter Sessions, and in other boroughs the town council, where a resolution is passed to this effect, local standards are provided and inspectors appointed. (See Sec. 50 of the Weights and Measures Act, 1878, and Sec. 39 of the Local Government Act, 1888.) The question of how to qualify for these inspectorships, and as to the examination conducted by the Board of Trade in connection therewith, was dealt with in the "Notes and Answers" column of our issue of the 13th inst. We should add to the reply there given that by virtue of the Weights and Measures Act passed last session, the Board of Trade is required to provide for the examination of applicants for these inspectorships who have actually been *nominated* by the local authority under the Acts, and that such persons may not be *appointed* unless they have previously obtained the Board of Trade certificate that they have satisfactorily passed such examination.

614.—**PRIVATE STREET WORKS ACTS—Liability of Corporation to Take Over.**—In the event of roads being made up under the Private Streets Works Act, are local authorities compelled to take same over, and maintain at the expense of the ratepayers? The corporation of the borough of B—— proposed to make up certain roads, the paths of which were to be tar-paved, the owners objected, and the magistrates deleted the tar-paving: the corporation decided it would not proceed with the work, but at the request of many of the owners it decided to proceed, but before doing so it sent a circular to all owners stating that the roads would not be considered to be made up to its satisfaction unless the footpaths were tar-paved: the corporation now refuses to take the roads over in accordance with the circular issued: the owners meanwhile contend, that as the council carried out the work under the supervision of its surveyor, it is bound to take them over. Is this so?—"W. E. H."

Briefly, the procedure under the Private Street Works Act of 1892 should be as follows:—We assume that the Act has been duly adopted by the Corporation in substitution for the corresponding provisions of the Public Health Act, 1875, which have often proved to be inconvenient in several ways. The Corporation passes a resolution that a certain street in the borough should be made up (sewered, levelled, paved, metalled, &c.) to its satisfaction. Thereupon the borough surveyor prepares a specification of the private street works referred to in the resolution, with plans and sections, an estimate of the cost, and a provisional apportionment of the estimated expenses among the premises liable to contribute. The specification, estimate, and provisional apportionment are then submitted to the council, and the resolution approving the same is duly advertised, and the approved plans, &c., are deposited for inspection at the council's offices for one month. During that month the owner of any premises liable to contribute may object to the proposals of the council by written notice on any one or more of several grounds of objection set out in the Act (Sec. 7). Amongst other grounds, he may object "that the proposed works are insufficient or *unreasonable*, or that the estimated expenses are excessive." Under this heading would properly come any objection to the private street in question being paved with tar instead of with some cheaper substance. The council, after the expiration of the prescribed month from the date of advertising the resolution, may apply to a court of summary jurisdiction to appoint a time for determining the matter of all objections, and due notice thereof shall be given. The magistrates have thereupon power to quash in whole or in part, or to amend, the resolution, plans, sections, estimates, and provisional apportionments, on the application either of the objector or the council (Sec. 8). The council may subsequently amend the specification, plans, estimates, and apportionment; but if the total amount of the estimate be increased, the procedure above indicated must be repeated, and the right granted to frontagers to object again arises. When the proposed street works have been completed, and the expense thereof ascertained, the surveyor makes a final apportionment on a basis prescribed in the Act, and such final apportionment is conclusive for all purposes, except that the frontagers have still certain powers of objecting, on the ground, for example, that the expenses have exceeded the estimate by over 15 per cent., or that there has been an unreasonable departure from the specification. On these street works being completed, and the street being paved, levelled, metalled, &c., to the satisfaction of the corporation, then, on application in writing of the greater part in value of the owners of the houses and land in such street, the corporation shall within three months, by notice put up in the street, declare the same to be a highway, repairable by the inhabitants at large; and thereupon it becomes a public street or highway which must be maintained at the cost of the rates. We are not clear from our correspondent's query what exactly has occurred in the case submitted, and have, therefore, set out the effect of the Act of 1892, so far as it bears on the case. Our correspondent will be able to apply it to the circumstances. It is clear, however, that the magistrates have power to amend the specification as to tar-paving, and that if this be done the council is not empowered to require the street to be tar-paved, and that once the street is made up in accordance with the advertised plans and specifications, the council can be compelled to take it over.

615.—**ALDERMEN—Qualification for Election—Metropolitan Municipal Franchise—Lodgers and Aliens.**—May I ask you to reply to a few questions in your next Friday's issue of the *Municipal Journal*? Can a town or borough council elect as alderman any man, including one outside the council, or must he be elected from the elected councillors? Are lodgers in London on the municipal register to vote for councillors, and what is their qualification? Are any aliens—householders or lodgers—on the municipal register in London?—"W. K."

Aldermen "shall be fit persons elected by the council," and "a person shall not be qualified to be elected or to be an alderman unless he is a councillor, or *qualified to be a councillor.*" (See Municipal Corporations Act, 1882, Sec. 14, and the London Government Act, 1899, Sec. 2.) An alderman, therefore, need not be a councillor, but he must have the qualifications required in the case of councillors, and this rule applies alike in metropolitan and provincial boroughs. Aliens, unless granted letters of naturalisation or designation, are precluded from being registered as municipal, county, or parliamentary electors, even though they may be householders or lodgers. Lodgers, being naturalised British subjects, are entitled to be included in the register of electors for borough and county purposes in London, if they have been in occupation and residence for twelve months previous to the 15th of July in any year of rooms of the value of £10 per annum unfurnished, in one house in the borough.

616.—**RATING—Is Property Unoccupied for Part of the Year Liable to the Borough Rate?**—A is yearly tenant of a lock-up shop, but actually occupies the premises from 1st April till 1st October only, and during the winter months honestly endeavours to sub-let, but without avail.

Is A legally entitled to have his borough rates apportioned for the time he actually occupies the shop, or is he considered to be beneficially occupying the premises by virtue of his continuing the tenancy from year to year, and on that account not entitled to relief?

B is yearly tenant under the same circumstances as A, but gives up his premises on 1st October. Is he entitled to relief?

C is yearly tenant under the same circumstances as A and B, but renews his tenancy every year by new agreement. Is he entitled to relief?—"HARASSED."

The question here does not appear to be affected by the terms of the tenancy. In each case, if the house is unfurnished and to let, it is not liable to pay rates in respect of the period during which it is unoccupied and to let. As long as an owner or lessee of property "leaves it vacant he is not rateable for it as an occupier" (per Lush, J., in R. v. St. Pancras, Z., Q.B.D. 581). Where, however, the premises are furnished and ready for occupation, rates must, apparently, be paid for the whole year in case A. In the second and third cases there can be no liability on B or C to pay rates in respect of the latter half of the year during which they are neither tenants nor owners of the premises concerned.

617.—**WATCH COMMITTEE.—Can Councillors not Members of Committee attend its Meetings?**—Until quite recently the practice here was that any councillor could, and, in fact, many did, attend (but not vote) at Watch Committee meetings. Now we are told that that was only allowed by sufferance, and not as a right, although the Watch Committee is elected into being by those members of the council thus refused. What statutory powers has a county borough watch committee? Can it legally prevent those members who are not on the Watch Committee from attending its meetings if such members desire to do so?—"OLD SUBSCRIBER."

The watch committee of a town council appoints and pays borough constables, frames regulations for their efficiency, and suspends or dismisses them. It should send quarterly to the Home Secretary a copy of the rules for the regulation and guidance of borough constables. The mayor is an *ex officio* member of the committee. The members must not exceed one-third of the councillors, and three will constitute a quorum. The acts of this committee, unlike those of other committees, are not required, apparently, to be submitted to the council for its approval.

These are the chief powers and duties of a watch committee. This committee is on the same footing as any other committee of the council in respect of the exclusion or non-exclusion of other councillors. There would appear to be no statutory or other authority enabling a committee of the town council to exclude non-members, being councillors, from its meetings. In the absence of any such authority, it seems to us that a committee cannot lawfully exclude other councillors from being present at its meetings, though they may be restrained, of course, from taking part in any way in its proceedings. The council, however, may properly make rules on the subject, either admitting or excluding such councillors. Reference may be made here to the practice of Parliament in the matter. The Lords have a Standing Order that any peer may attend a Select Committee of the House, but may not vote or take part in its proceedings unless a member thereof. In the Commons the rule, based on usage, seems to be that members cannot be excluded from a Committee to which they do not belong by the authority of such Committee. The rule is different in both cases where the Committee is a secret one. Presumably similar principles will apply in the case of committees of a town council.

618.—**WATER MAINS—Liability for Damage.**—Water mains belonging to my council as the water authority are laid through the district of an adjoining borough. Considerable damage has recently been caused to certain of the pipes owing to a heavy locomotive and waggons loaded with bricks passing along the highway under which the pipes are laid. It is assumed that the water authority has a good right of action against the proprietor of the locomotive if they can prove that the weight taken over the pipes was excessive. Not being the highway authority for the district, they cannot take action for extraordinary traffic. What course do you recommend should be taken? Can you refer me to any decided similar case?—"L. C."

It is clear that the council has a right of action in the matter. The proper course would

seem to be for the council to make a claim on the owner of the locomotive for the cost of repairing the water main and incidental expenses involved, and if the latter declines to recoup the council for the damage done by the locomotive, to initiate proceedings against him by civil action in the ordinary way. We do not know of any decided case exactly in point, but will make further search and insert a note in next week's issue should any case turn up.

619.—**NON-ASSESSMENT OF OCCUPIED PROPERTY—Loss to Rates—Objection Raised before District Auditor.**—A correspondent sends us a copy of the following communication addressed by him to the Local Goverument Board:—

"Sir,—At the recent audit of the accounts of the X—— Council, I appealed to the district auditor respecting two shops that have been occupied during the last and present years, but are not yet assessed for the payment of rates and taxes. I have now received a letter from the district auditor in which he informs me that 'he considers the matter is serious,' but that, in his opinion, he has no power to deal with it. I am aware that if this related to the poor rate the remedy would be to appeal to Special Sessions, uuder the Statute 6 and 7, Will. IV., c. 96. I am under the impression that the object of the audit is to see that the accounts of the council were properly kept, and that all moneys due to them were duly brought to account. In this case there has been a serious loss to the district rate which is levied by the council. I am desirous of knowiug whether your Board do not consider my appeal as a ratepayer in the borough should have been dealt with by the district auditor in the usual manner;"

Our correspondent writes respectiug this as follows:—"I have received a letter from the Local Governmeut Board in answer to my appeal againct the auditor's decision. In this it is stated 'the Board do not clearly gather what action you wish the auditor to take in the matter, but in any case they do not consider that they have any power to interfere in the matter in its present form.' My reply was to the effect that 'having drawn the auditor's attention to the irregularities, and he haviug upheld my contention, by stating in a letter to me that "he considered the case serious," I had reason to believe that it would rest with him to deal with the matter as is usual in such cases.'"

The general district rate is assessed, made, and levied on the full nett annual value of all kinds of property for the time being by law assessable to any rate for the relief of the poor, as ascertained by the valuation list for the time being in force, subject to certain exceptions in the case of land, &c. This valuation list is prepared and signed by the overseers, and passed by the assessment committee of the guardians. Any objections to it should be made to the assessment committee in the first instance.

Sec. 247 (7) of the Public Health Act, 1875, requires the district auditor to charge against any person accounting—that is, of course, where the accounts, as in this case, are subject to his audit—the amount of any deficiency or loss incurred by the negligence or misconduct of that person, or of any sum which ought to have been, but is not, brought into account by that person. It will be readily admitted that a difficulty here arises in directly attaching to any one or more persons responsibility under the above provision for loss to the district rate. The matter is not simplified by the fact that the valuation list is made out primarily for poor rate purposes, and that only incidentally, as it were, is it used for district rate purposes. Perhaps a surcharge might be made in the case of poor rates lost through occupied property not being included in the valuation list on the overseers or assistant overseers, who are primarily responsible for such list, provided negligence on their part be shown. But it seems doubtful whether this could lawfully be done where the loss arises in the district rate. In any case, the L.G.B. does not appear to have any direct jurisdiction in the matter. If the overseers' accounts have not been audited yet, we suggest that our correspondent might raise the question at their audit. In any event, the matter should be brought officially before the council.

THE Blackpool Corporation is making arrangements for the forthcoming speed trials on the Promenade in June. The track on the occasion of the last motor trials was said to be equal to anything in the country. This year it is said it will be the best in Europe, for it is to be extended a thousand yards, thus giving a greater length for the motors to get up speed.

RATING SITE VALUES.

ACTION BY THE LONDON COUNTY COUNCIL.

THE following letter has been addressed to all the metropolitan Members of the House of Commons by the clerk to the London County Council (Mr. G. Lawrence Gomme):—

County Hall, Spring Gardens, S.W.,
January 18, 1905.

Sir,—The question of the rating of site values was first considered by the Council soon after its constitution in 1889, and the Council has since seen no reason to alter the opinion which it then formed that the owners of sites should be rated for the purposes of the local government of London. In 1892 the Council requested the Government to so amend the Valuation (Metropolis) Act, 1869, as to provide, inter alia, for the value of land being stated in the valuation lists separately from the value of buildings. Three years later, viz, on December 1, 1892, the Council passed the resolution:—"That it is imperative that the relief of the occupying ratepayers of London from the increase of charge should be secured in the next session by the provision of some new source of revenue; and that, in the opinion of the Council, the most equitable method of securing this relief is by the taxing of ground values in London."

Evidence in support of this proposal was given on behalf of the Council before the Royal Commission on Local Taxation. The Council promoted in the session of 1901 a Bill to provide for the rating of ground values, but the Bill failed to reach second reading in the House of Commons. The proposal in the Bill, however, received valuable support from the publication in the same year of the final report of the Royal Commission on Local Taxation, to which was appended a report by five of the Commissioners, in which they expressed the opinion that a moderate rate, proportionate to the site value, ought to be imposed as part of any scheme for the readjustment of the burden of local taxation in urban districts. The question of again introducing a Bill dealing with the matter was considered by the Council in 1902, but the Council at that time contented itself with passing a resolution reaffirming the opinion which it had previously expressed.

The subject has since been considered at a conference of representatives of municipal and other rating authorities convened by the Glasgow Corporation; and at a meeting of this conference on 7th October, 1904, several resolutions were passed, the principal being—(1) "That this conference of representatives of municipal and other rating authorities reaffirms its opinion that, on the ground of justice to existing ratepayers, for the better housing of the people, and in order to reduce the burden of municipal improvements, there is urgent need for legislation to provide for the taxation of land values; and, having heard the report of the various steps of procedure that have been taken by its committee since the last meeting of the conference, held in London on 9th March last, approves thereof. The conference further records its satisfaction at the substantial progress which this organisation of municipal and other rating authorities has made, and the influence it has had on public opinion, as evidenced by the second reading of Mr. Trevelyan's Bill being carried by a majority of 67 votes in the House of Commons on 11th March last, but expresses regret that no facilities were afforded by the Government for further consideration of the measure."

The Corporation of Glasgow having asked the Council whether it would co-operate in an endeavour to secure that the principles for which the conference was contending should be placed on the statute-book, the Council, on November 22 last, passed a resolution reaffirming its opinion in favour of the direct rating of site values. With a view of assisting the conference in its efforts to bring about this desirable reform of the system of local taxation, I have been directed to ask you, as a member of Parliament representing a London constituency, whether you are willing to ballot at the beginning of the session of 1905 for a place for a Bill, and, in the event of your securing a place, to introduce a Bill on the lines of that put forward by Mr. Trevelyan last session, and which, you will no doubt remember, was read a second time.

For convenience of reference I set out below the main provisions of Mr. Trevelyan's Bill:—

(1) To provide for the assessment of the annual value of land in a separate column of the valuation list.

(2) To fix 3 per cent. of the amount for which the land could be sold as by a willing seller to a willing buyer as its annual value.

(3) To secure that rateable value shall in no case be less than the annual value of the land so defined.

(4) To compel the payment of rates in respect of all unoccupied hereditaments upon the annual value of the land comprised in each.

(5) To allow the occupier under any future lease or agreement to deduct from his rent so much of any rate as is based on the amount of land value.

(6) To limit the statutory deductions for repairs, &c., to the difference between gross value and land value, such difference being taken as approximately representing the value of the building.

SMALL HOLDINGS MOVEMENT.

TWENTY YEARS' WORK.

AN interesting record of twenty years' work in restoring the rural population to direct connection with the soil was presented at the annual meeting of the Allotments and Small Holdings Association held on Thursday in Birmingham.

Sir Walter Foster, M.P., who presided, said they were cheered to find that the association had directly or indirectly been instrumental in giving allotments to over 50,000 rural labourers. They had also the satisfaction of knowing that the only purely agricultural district in which the process of depopulation had been checked was a county division (the southern part of Hollandshire) in Lincolnshire, where allotments and small holdings had been most extensively provided.

They must agitate for giving parish councils powers for compulsory hiring of land for small holdings and for housing purposes. Such land, when obtained, could be leased again for the erection of cottages. Each locality was the best judge of its requirements as regards building bye-laws, and they should be freed from the rigid, inelastic red-tape of the Local Government Board.

In order to house the rural population decently there was much work for the Association to do, and in conjunction with this they must associate the further development of small holdings and the wiser administration of local charities.

Sir W. Foster was re-elected president, Sir John Brunner treasurer, and Messrs. J. Crouch, Arnold Harris, F. Impey, R. L. Impey, Herbert New, H. S. Smith, John Morgan, and C. C. Smith were appointed the committee for the coming year.

DIRECTORS' COMPENSATION

IN LONDON WATER BOARD PURCHASE.

IN connection with the London Water purchase, the following are the awards made by the arbitrator in the case of the compensation to directors of six of the companies taken over by the Board:—

Company.	Directors.	Claim.	Award.
		£	£
Chelsea	8 ...	18,000 ...	13,692
Grand Junction	9 ...	23,330 ...	18,206
Kent Company	6 ...	21,000 ...	19,097
Lambeth	8 ...	33,917 ...	22,054
Southwark and Vauxhall	7 ...	27,262 ...	18,789
West Middlesex	11 ...	44,487 ...	33,110

The total amount of the claims was £280,831, and the amount of the awards £201,868.

THE negotiations between the Corporation of Accrington and the Urban District Council of Clayton-le-Moors for the amalgamation of the two districts, in order to form a county borough, have been carried a step further this week.

Official Advertisements.

BOROUGH OF SOUTHEND-ON-SEA.

TRAMWAY PASSENGER TICKETS.

THE Corporation invite TENDERS for the privilege of ADVERTISING on the Backs of 5,000,000 Tramway Passenger Tickets required during the year ending 31st March, 1906, or any portion of that number not less than 500,000.

Specimens of Tickets may be seen and full particulars obtained at the Office of the Borough Accountant, Municipal Buildings, Clarence Road, Southend-on-Sea.

Tenders, marked "Advertising on Tickets," must reach the Borough Accountant not later than Wednesday, the 8th February next.

By order.

WILLIAM H. SNOW,
Town Clerk.

Southend-on-Sea.
17th January, 1905.

COUNTY BOROUGH OF WEST HAM.

TENDERS FOR SUPPLIES, &c.

THE Council hereby invite TENDERS for the SUPPLY of

Paving Materials,
Broken Granite and Chippings,
Road Flints,
Tar and Pitch,
Ironmongery, &c.,
Iron Castings,
Chalk, Plaster, Slates, Lime, &c.,
Portland Cement,
Rope and Tarpaulins, &c.,
Hardwood,
House Steam Coal and Coke,
Coal for Pumping Station,
Lead, Zinc, Glass, and Plumbers' Requisites,
Oils, Colours, Painters' Brushes,
Stoneware Pipes, &c.,
Brooms and Brushes,
Charcoal Baskets, Sieves, &c.,
Boots,
Sanitary Articles,
Domestic Articles,
Winding Clocks.

Forms of tender and further particulars may be obtained at the Borough Engineer's Office, Town Hall, Stratford, E., upon the payment of One Pound for each form of tender, which will be returned upon the receipt of a bona-fide tender.

For the SUPPLY of
Engine Room Stores,
Cable,
Integrating Wattmeters,
Double-Pole House Cut-Out Boxes,
Transformers,
Incandescent Lamps,
Coal.

Forms of tender and further particulars may be obtained, after the 26th inst., at the Borough Electrical Engineer's Office, Central Electricity Station, Tucker Street, Canning Town, upon the payment of One Pound for each form of tender, which will be returned upon the receipt of a bona-fide tender.

For the SUPPLY of
Books,
Printing and Stationery.

Forms of tender and further particulars may be obtained, after the 31st instant (returnable on February 23rd), on application at the Office of the Borough Treasurer, Town Hall, West Ham, upon the payment of One Pound for each form of tender, which will be returned on receipt of a bona-fide tender.

For the SUPPLY of
Newspapers and Periodicals,
New Books, and for
Bookbinding
For the Public Libraries and Technical Institute.

Forms of tender and further particulars may be obtained at the Central Public Library, Water Lane, Stratford; or the Branch Library, Barking Road, Canning Town, E.

For the SUPPLY of
Meat,
Bread and Flour,
Groceries,
Linen and Cotton Goods, &c.,
For use in the Council's Hospitals.

Forms of tender and further particulars may be obtained of the Medical Superintendent at the H tal, Samson Street, Plaistow.

Tenders for the whole of the contracts (except Books, Printing, and Stationery) to be enclosed in endorsed envelopes supplied with the forms, and sent to my office not later than 4 o'clock on Thursday, February 9th, 1905.

The tenders will be opened at the Town Hall, West Ham, on Friday, February 10th, 1905, at 3 p.m., and persons tendering may be present if they so desire, but no guarantee is given that any information, beyond the names of persons tendering, will be read out.

The Council do not bind themselves to accept the lowest or any tender. The contractor will be required to enter into a bond with sureties for the due performance of the contract, and no Goods, Materials, &c., will be ordered under any contract until such bond has been duly executed.

The contractor whose tender is accepted, and with whom a contract is entered into, will be required to pay to the whole of his workmen such rate of wages, and observe such hours of labour, as are recognised by the Workmen's Trade Unions and in force at the time of signing the contract. In the event of any breach of such agreement the Council will enforce the penalty clause in its entirety.

By order of the Council.

FRED. E. HILLEARY,
Town Clerk.

Town Hall,
West Ham, E.
January 21st, 1905.

WEST HAM UNION.

APPOINTMENT OF MASTER AND MATRON.

THE Guardians invite Applications for the Appointment of MASTER and MATRON of their Workhouse (and its branches), situate at Union Road, Leytonstone, N.E. Salary £200 and £100 per annum respectively, with the usual residential allowances.

Forms of application will be forwarded on request, and copies of three testimonials of recent date only are to be inserted in the forms, which must be sent to me by Thursday, the 2nd February, 1905, at 10 a.m.

Canvassing the Guardians is strictly prohibited.

By order of the Board.

FRED. E. HILLEARY,
Clerk.

Clerk's Office,
Union Workhouse, Leytonstone, N.E.
19th January, 1905.

METROPOLITAN BOROUGH OF FINSBURY

CONTRACTS FOR SUPPLIES.

THE Finsbury Borough Council invite TENDERS for the SUPPLY of the undermentioned WORKS and ARTICLES:—

(1) FOR TWELVE MONTHS, FROM 31ST MARCH NEXT.

(a) Ballast, Sand, &c.	Paving Materials and Broken Granite
Brushes	Sewer Ironwork
Chandlery	Smiths' Work
Clothing, Boots, &c.	Stoneware Goods
Disinfectants	Timber
Gasfitters' Materials	
Lime and Cement	
(b) General Stores	Scavengers' Brooms
Machine Broom Refills	

(2) FOR SIX MONTHS, FROM 31ST MARCH NEXT.
Fodder.

Particulars of the articles, &c., required, and forms of tender, may be had any Saturday from 10 to 12, and on any other day from 10 to 4, on application at the Borough Surveyor's Department, at the Town Hall, Rosebury Avenue, E.C., in respect of the articles specified in Paragraph No. 1 (a), and at the Superintendent's Office, 26, Wharf Road, in respect of those in Paragraphs Nos. 1 (b) and 2.

Tenders, marked on the outside "Ballast," or as the case may require, must be delivered to me, at this Office, not later than noon on the 6th February prox.

Only those tenders made upon the official form, and properly filled up and signed, and confined to the articles specified therein, will be entertained.

GEORGE WHITEHEAD PRESTON,
Town Clerk.

Finsbury Town Hall,
Rosebury Avenue, E.C.
21st January, 1905.

CLEAR WATER.—To be SOLD cheap, Bell's Improved Water Filter. Capacity 18,000 gallons per hour. Perfect order and condition, and can be seen working. Jas. Smith and Sons, Calder Wharfe Dyeworks, Dewsbury.

ST. PANCRAS BOROUGH COUNCIL.

CONTRACTS.

THE Highways, Sewers, and Public Works Committee of the Council of the Borough of St. Pancras will meet at the Town Hall, Pancras Road, on Monday, the 6th February, 1905, at 5 o'clock p.m., to receive TENDERS from persons willing to execute Contracts for one year, viz:—

1. Removal of Road Sweepings, Gully Soil, and Snow.
2. Horsing Water Vans.
3. Horsing Road Sweeping and other Machines.
4. Cartage.
5. Horsing Dust Vans.
6. Removal of House Refuse.
7. Supply of Timber and Joinery Materials.
8. Barrows, Trucks, Handles, &c.
9. Supply of Paints.
10. Suppy of Oils.
11. Supply of Candles and other Chandlery.
12. Smiths' and Founders' Works.
13. General Ironmongery.
14. Tools and other Hardware Goods.
15. Supply of York Flags, Granite Setts, Kerbs, Broken Granite, and Kentish Rag.
16. Supply of Gravel and other Roadway Materials.
17. Supply of sundry Materials (Lime, Cement, Bricks, Stoneware Pipes, and other Glazed Goods).
18. Supply of Bass Brooms, Hemp and Rubber Goods, Pitch, Creosote Oil, Carbolic Powder, Coke, &c.

No tender will be received unless made out on one of the printed forms, without any alteration thereof, which, with any further particulars, can be obtained on application to Mr. Wm. Nisbet Blair, M.Inst.C.E., Borough Engineer and Surveyor, not later than 12 o'clock noon of the said Monday, the 6th February, 1905.

Sealed tenders to be delivered, signed by the intending contractor, with the names and descriptions of two sufficient sureties for the due performance of the several contracts, at the Office of the Department of Works (No. 4, first floor) by 5 o'clock precisely in the afternoon of the said Monday, the 6th February, 1905.

The Council do not bind themselves to accept the lowest or any tender.

Intending contractors are not required to attend the Committee.

By order.

C. H. F. BARRETT,
Town Clerk.

Town Hall,
Pancras Road, N.W.
21st January, 1905.

URBAN DISTRICT COUNCIL OF CHISWICK.

TO CONTRACTORS, MERCHANTS, AND OTHERS.

PERSONS desirous of TENDERING for the Execution of WORKS and SUPPLY of STORES (separately), as under:—

For One Year, commencing 1st April, 1905:—

1. For hire of horses and drivers, with or without carts.
2. Oils, &c.
3. Ironmongery, &c.
4. Disinfectants.
5. Clay Cross (or Buxton) and Grey Lime.
6. Coal and Coke.
7. Aluminoferric.
8. Cement.
9. Kentish Pit Flints and Blue Guernsey Granite.
10. Stationery.
11. Printing.
12. Winding and Repairing Clock.
13. Forage.
14. Horsing of the Fire Brigade.
15. Pipes, Gullies, &c.

may obtain forms of tender on application to Mr. John Barclay, Surveyor of the Council, at the Town Hall, Chiswick, where specimens of the goods and forms of contract and bond may be inspected after the 21st instant, between the hours of 9 and 10 a.m., or at any other time by appointment.

Tenders to be made on the prescribed forms, and delivered in sealed envelopes to the undersigned, not later than 5 p.m. on Thursday, the 9th day of February, 1905.

By order.

ERNEST F. COLLINS,
Clerk of the Council.

Town Hall, Chiswick, W.
18th January, 1905.

Official Advertisements.

BOROUGH OF PLYMOUTH.

TENDERS FOR SUPPLY OF GOODS AND MATERIALS.

TENDERS are invited for the SUPPLY of the following GOODS and MATERIALS for One Year from 1st April, 1905:—

Schedule A—Creosote.
" D—Paint and Linseed Oil.
" F—Road Metal.
" H—Ironwork.
" K—Petroleum Oil.
" L—Broom Heads.
" M—Refilling Machine Revolving Brooms.
" P—Iron, Steel, Bolts and Nuts.
" S—Carbolic Powder and Sanitary Fluid.
" T—Portland Cement.
" U—Lubricating Oil.
" W—Tar and Pitch.
" X—Painters' Brushes.
" Y—Explosives.
" AA—Glass, Painters' Tools, &c.
" DD—Soap.

Tenders must be based on the whole of a schedule, and not on any particular item contained therein.

Schedules may be obtained on payment of a deposit of £1 in cash for each schedule (cheques will not be received), which will be returned on receipt of a bona-fide tender. Should the contractor withdraw his tender or fail to send in one, the amount of his deposit will be forfeited, and the contractor who applies for the schedules must do so on the distinct understanding that he is willing to abide by the terms of the advertisement.

Persons tendering must bind themselves to pay the standard rate of wages, and adopt the standard hours of labour considered fair in the district of the Three Towns.

The lowest or any tender will not necessarily be accepted.

Tenders to be delivered not later than the 18th February, addressed to the undersigned, with the exception of Schedule "DD" (Soap), which must be addressed to the Medical Officer of Health, 19, Whimple Street, Plymouth.

JAMES PATON,
Borough Engineer and Surveyor.
Municipal Offices.
16th January, 1905.

BATTERSEA BOROUGH COUNCIL.

TO CONTRACTORS AND OTHERS.

THE Battersea Borough Council invite TENDERS for the following, from the 31st March next, as per forms of tender:—

1. Horse Hire.
2. Circular Bass Brooms.
3. Scavengers' Bass Brooms.
4. Veterinary Attendance, &c., upon Horses.
5. Removal of Manure.
6. Disinfectants.
7. Bricks, Cement, Lime, Slates, &c.
8. Granite and Stone.
9. Gravel and Flints.
10. Harness Materials and Fittings.
11. Ironmongery, &c.
12. Iron Bars, &c., for Blacksmiths' Work.
13. Paints, Oils, &c.
14. Varnish.
15. Side Entrance Covers and other Castings.
16. Stoneware Pipes.
17. Timber and other Materials for Carpenters' Work.
18. Timber and other Materials for Wheelwrights' Work.
19. Tools.
20. York Paving, &c.
21. Coal and Coke.
22. Soaps, Oils, &c.

Forms of tender, containing full particulars, may be obtained at the Town Hall, between 10 and 4 (Saturdays 10 and 1), and no tender will be considered unless on the official form.

Tenders, in separate envelopes, sealed, and marked on the outside, "Tender for ——," must be delivered to me by 3 p.m. on Wednesday, 8th February, together in the cases of items 3, 8, 9, 16, and 20 with samples, carriage paid.

W. MARCUS WILKINS,
Town Clerk.
Town Hall,
Battersea.
23rd January, 1905.

METROPOLITAN BOROUGH OF STEPNEY.

CONTRACTS.

THE Council of the Metropolitan Borough of Stepney hereby invite TENDERS for CONTRACTS for One Year, from 31st March, 1905, as follows, namely:—

1. Supply and delivery of Brooms, Brushes, &c.
2. Supply and delivery of Tools, Implements, &c.
3. Sharpening of Tools.
4. Shoeing and Roughing of Council's Horses.
5. Supply and delivery of Cast Iron Work.
6. Supply and delivery of Portland Cement.
7. Supply and delivery of Bricks, Lime, and Fire-Clay.
8. Supply of and Repairs to Harness.
9. Supply and delivery of Drainage Materials.
10. Supply and delivery of Timber.
11. Supply and delivery of Colours, Varnishes, Oils, and Sundries.
12. Supply and delivery of Oilman's Goods.
13. Supply and delivery of Wheelwright's and other Materials for Repairs to Carts, Vans, &c.
14. Squaring and Redressing old Paving Materials.
15. Supply and delivery of Disinfectants.
16. Removal of Dead Bodies to Mortuary.
17. Supply and delivery of Uniform Clothing.

Also Tenders for Contracts for the period from 31st March, 1905, to 31st March, 1908, as follows, namely:—

18. Hire of Horses, Driver and Carts, and Cartage of Rubbish, &c.
19. Supply and Delivery of Ballast, Sand, Shingle, &c.
20. Supply and Delivery of Paving Materials.

Also tenders for contracts for the period from 25th March, 1905, to 29th September, 1905, as follows, namely:—

21. Supply and delivery of Steam Coal.
22. Supply and delivery of House Coal.
23. Supply and delivery of Coke.

Persons tendering must submit the names and addresses of two substantial persons willing to be jointly and severally bound with them for the due and proper performance of their several contracts.

Contractors will be required at all times during the existence of their contracts to pay the trade union rates of wages as agreed to by the employers' association and trade unions, and as in practice obtain.

Contractors will also be prohibited from assigning or underletting their contracts without the written consent of the Council previously obtained.

Forms of tender, specifications, stipulations, and other conditions for items Nos. 1 to 14 inclusive, and items Nos. 18, 19, and 20, may be obtained on application to the Borough Engineer (Mr. M. W. Jameson), and forms of tender and specifications for items Nos. 15, 16, 17, 21, 22, and 23, upon application to the undersigned, at the temporary Municipal Offices, 15, Great Alie Street, Whitechapel, E., between the hours of 10 and 12 a.m., upon deposit of a £5 Bank of England note.

The deposit of £5 will be repaid upon receipt of a bona-fide tender, and return of the documents issued.

Tenders must be endorsed with a short description of the articles tendered for, and sent to the undersigned on or before noon on Saturday, 11th February, 1905.

The Council do not bind themselves to accept the lowest or any tender, and will not accept the tender of any person or firm who shall on any previous occasion have withdrawn a tender after the same has been opened, unless the reasons for the withdrawal were at the time satisfactory to the Council.

By order.
GEO. W. CLARKE,
Town Clerk.
Municipal Offices (Temporary),
15, Great Alie Street,
Whitechapel, E.
25th January, 1905.

AGENTS REQUIRED in unrepresented districts for the Imperial Accident, Live Stock, and General Insurance Co., Ltd. Estd. 1878. Departments: — Personal Accidents. Carriage and Drivers' Accidents. Horse and Cattle Insurance. Claims paid £300,000. Address Mr. B. S. Essex, Manager, 17, Pall Mall East, London, S.W.

SHOEMAKER, or other capacity. Good testimonials. Experienced. State wages. Apply G. C. A., MUNICIPAL JOURNAL Office, 12, Salisbury Square, E.C.

CITY OF WESTMINSTER.

FOREMAN OF DUST DESTRUCTOR, SHOT TOWER WHARF, COMMERCIAL ROAD, LAMBETH, S.E.

THE Westminster City Council invite Applications for the position of FOREMAN of the Dust Destructor (Horsfall) at Shot Tower Wharf, Commercial Road, Lambeth, S.E., at wages of £2 per week, with residence at the Wharf.

Forms of application and the terms and conditions of the appointment may be obtained from the undersigned, to whom applications, with copies of not less than one, and not more than four, recent testimonials, must be delivered not later than noon on Monday, the 6th February, 1905, and to be marked on the outside, "Foreman of Dust Destructor."

Personal canvassing is strictly prohibited, and is held to be a disqualification.

JOHN HUNT,
Town Clerk.
Westminster City Hall,
Charing Cross Road, W.C.
25th January, 1905.

BOROUGH OF SOUTHWARK.

CONTRACTS.

TENDERS are invited for the following CONTRACTS from the 1st day of April, 1905, to the 31st day of March, 1906:—

1. Asphalte, Bitumen, Pitch, &c.
2. Ballast, Sand, &c.
3. Brooms and Brushes.
4. Coach Ironmongery.
5. Coals and Coke.
6. Disinfectants.
7. English Timber.
8. Foreign Timber.
9. Fodder (three months).
10. Granite (Broken).
11. Harness Materials.
12. Horse Hire.
13. Lime, Cement, and Bricks.
14. Linen Goods, &c.
15. Oils and Colours.
16. Packing Rope, &c.
17. Pitching and Paving.
18. Pipes.
19. Printing.
20. Sewer Ironwork.
21. Soaps and Soda.
22. Stationery.
23. Tools, Steel and Iron, &c.
24. Wheels, Tyres, &c.
25. Wood Blocks (Jarrah).

According to specifications, to be seen at the Town Hall, Walworth Road, S.E., any day between the hours of 10 a.m. and 4 p.m.

Tenders, duly signed, must be sent under cover, and endorsed "Tender for ——," and addressed to the Town Clerk, not later than 12 noon on Wednesday, February 15th, 1905.

The Council do not bind themselves to accept the lowest or any tender.

J. A. JOHNSON,
Town Clerk.
Town Hall,
Walworth Road, S.E.
27th January, 1905.

EATON & KNAPP,
BOILER SETTERS & FURNACE BUILDERS,
Repairs in Boiler Brickwork & Dust Destructors of all kinds.
ESTIMATES FREE.
23, CLACTON ROAD, WALTHAMSTOW.

LIGHTNING CONDUCTORS.
J. LEWIS,
5 and 6 Great Winchester Street, London, E.C.
TELEPHONE NO. 3053 CENTRAL.

THE BEST JUDGES OF CIGARS
Now obtain their supplies at
BENSON'S, 61, St. Paul's Churchyard, London.
Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

SUN FIRE OFFICE
FOUNDED 1710

SUN FIRE OFFICE

HEAD OFFICE:
68, Threadneedle Street, London, E.C.

Branch Offices in London:
60, Charing Cross, S.W.
332, Oxford Street, W.
40, Chancery Lane, W.C.
4, Mincing Lane, E.C.

BIRMINGHAM .....10, BENNET'S HILL.
BRISTOL..... CORN STREET.
LEEDS.....SUN BUILDINGS, 15, PARK ROW.
LIVERPOOL.....SUN BUILDINGS, 6, CHAPEL-ST.
MANCHESTER..... 71, KING STREET.
NEWCASTLE..... 19, COLLINGWOOD STREET.
EDINBURGH.....40, PRINCES STREET
GLASGOW..... 42, RENFIELD STREET.
DUBLIN .....10, TRINITY STREET.

Funds in Hand, £2,535,800.

WARD & MACONIE,

15, HANOVER STREET, LONDON, W.

Municipal Robe Makers and Court Tailors.

PRICE LIST ON APPLICATION.

DELICIOUS COFFEE.
RED WHITE & BLUE
For Breakfast & after Dinner.
In making, use LESS QUANTITY, it being so much stronger than ORDINARY COFFEE.

THE
SEPTIC TANK SYSTEM (PATENT) IS THE BEST for SEWAGE DISPOSAL.

300 INSTALLATIONS.

The System as now laid down embodies all the Improvements suggested by EIGHT YEARS' PRACTICAL EXPERIENCE.

In this System the Purification of Sewage is WHOLLY EFFECTED BY BACTERIA.

THE SEPTIC TANK COMPANY, LIMITED,

WESTMINSTER: 1, Victoria Street.
EXETER: 7, Bedford Circus.
LEEDS: Standard Buildings.

An admirable Food of the
EPPS'S COCOA
Finest quality and flavour.
Nutritious and Economical.

MUNICIPAL JOURNAL
FRIDAY, JANUARY 27, 1905.

NOTES AND COMMENTS.

Municipal Milk Supplies.

WE see that the Health Committee of the Birmingham City Council is inquiring into the question of municipal milk depôts, with the object of establishing one of these useful institutions in the Midland capital. We have not one word to say against these depôts, which have done, and are doing, a vital work, but we suggest to the Birmingham City Council, and all other public bodies which have this matter under consideration, that they should at the same time take every opportunity of—and, if necessary, make opportunities for—impressing upon mothers the advantages of natural feeding. After all, every mother who avails herself of the municipal milk depôt is adopting a system of unnatural feeding for her child, and side-by-side of the municipal institution for the supply of pure milk should go the educational propaganda of the sanitary staff, which should—as it does at Birmingham, we believe—include lady health visitors, whose duty it is to show the mothers that the greatest safety lies along the path of nature. We are constrained to make these remarks after reading the report of a recent address at Paris by Mons. Variot, of the French Academy of Medicine, and an eminent specialist on the diseases of children. Mons. Variot challenged the general assumption that rates of infant mortality must of necessity be greater in industrial towns and villages than in rural districts, but he did not advise municipal milk depôts as the reforming agency:—

> It was true that the statistics prepared by Dr. Rhodes, of Manchester, showed that while the infant mortality rate per 1,000 varies from 79 to 100 in English rural districts, and in the industrial districts from 175 to 180, nevertheless the great success achieved at Le Creusot, in Central France, in regard to the reduction of infant mortality gave a striking proof that the rate could be very greatly reduced.
>
> The average rate of infantile mortality for ten years, 1893-1903, has been 110 per 1,000. The rate is steadily decreasing, and has even fallen below 90 per 1,000—the average rate of infant mortality for Norway and Sweden.
>
> For the whole of France the average is 160 per 1,000. In some industrial districts in the North of France the rate is as high as 200 to 250 per 1,000.

Mons. Variot attributed the small infantile mortality rate at Le Creusot to—

(1) The general improvement in hygienic conditions.

(2) The increase in wages to workmen employed at the gun-making works of Messrs. Schneider Brothers. This has secured the proper feeding of the mothers, and has enabled them to fulfil their maternal duties.

(3) The granting of gratuitous medical assistance.

(4) Better conditions of housing, and the provision of parks, &c.

"The essential cause for the low rate," said Mons. Variot, "is, however, to be found in the fact that in the great Le Creusot factory, which in its several branches employs in all 25,000 workmen, only 18 married women are employed." Mons. Variot further declared that "under similar conditions of life and labour to those obtaining at Le Creusot, it should be possible to cut down by half the rates of infantile mortality in the industrial centres."

Municipal Creches.

A REACTIONARY, not to say stick-in-the-mud, L.G.B. may cry no "precedent," but that does not deter local governing bodies from initiating new schemes for the welfare of their people. The attempt to introduce into England, at Acton, the much-needed municipal crêche was followed by a splendid example of Governmental restriction and red-tape. Acton failed, but the Urban District Councils Association has taken up the matter, and with a quite unanimous voice, at a quarterly meeting of the executive a few days ago, it decided—

> That the Local Government Board be requested to introduce legislation by means of an adoptive Act, whereby local authorities may establish and maintain, or contribute to the establishment and maintenance of, crêches, or day nurseries.

The Council is to be congratulated on making this decided stand for progress, and to Councillor Hunt, the mover of the resolution and the piloter of the movement in Acton, especial praise is due.

Plymouth and Depreciation.

THE report of the Plymouth professional auditor (Mr. William Luxon) upon the borough accounts illustrates the absurdity of conferring upon these excellent officials the wide powers regarding depreciation and obsolescence provisions recommended by the Joint Select Committee on Municipal Trading. Mr. Luxon refers specially to the question of depreciation, and, being an auditor, and not an engineer, finds himself in a fix in dealing with it. He says:—

> Special attention should be directed to the fact that depreciation has been limited to the point of view of dealing with the wear and tear of machinery, but as regards obsolescence of plant, no allowance has been made by an apportionment from reserve fund.
>
> The above points raise a controversial subject, as the essence of the whole question depends upon whether the policy of the Corporation is to hand over an undertaking, when the present loan debt has been extinguished, in full working order, and in addition, with a sufficient reserve to admit of its being placed in its original state of efficiency, or alternatively for the provision of more up-to-date methods.
>
> For the purpose of this report, however, I think it may be taken that, apart from a statutory obligation to provide sinking funds, an opinion is desired on the one hand as to the proper charge to the respective trading accounts for actual wear and tear during the period, and on the other hand for the provision of possible obsolescence and for dealing with the cost of the undertaking—in reality, goodwill.
>
> I have already dealt with the first men-

ticned, and with regard to the latter, I am of opinion that a further amount should be provided out of the nett profit to the extent of. say, 2½ per cent. on the total capital outlay.

The undertakings in question are those of the tramways and electricity supply. Now. it is manifestly unreasonable to expect from an auditor, however good an accountant he may be, a considered opinion upon such a technical question as the sufficiency of wear and tear, and obsolescence provisions. The plant of both these enterprises must have been maintained in a condition which, for all practical purposes, is equal to the original, or it would not have been able to carry on the undertakings. If it were not so maintained, both the tramways and electricity supplies would have collapsed. The wear and tear under these circumstances must have been of a very slight nature, but in any case an accountant could not be expected to estimate it. Similarly, no auditor can be expected to gauge the degree to which a particular plant has become obsolete during a given year. He has no standard to apply, and engineers themselves are unable to estimate it. The auditor's estimate is governed by the particular opinions he holds concerning the subject in general—in other words, his policy governs his estimate. But policy has to be decided and controlled by the Council,—not by the auditor.

Municipal Loans in America.

DETAILS now to hand of municipal loans in the United States last year show, as we foretold a few weeks ago, an unprecedented total. The full amount is £50.119,500, as against £30.456.200 in 1903, or an average of £4.176 600 per month. This is without including purely floating debt, which represents a further £29.731,000. The great increase is partly explained by the unwillingness of the public to invest much in the previous year, there being throughout 1903 considerable dullness and depression generally in America as well as in this country. The market for municipal bonds in 1904 was quite steady, and many of the sales were made on a good basis, the average also being an improvement on that of 1903. The activity of the municipalities as represented by loans was general all over the States, and is a proof of the steady growth of the civic spirit in that country. The money was chiefly required for various public works, and the average rate of interest offered was about 4 per cent., a somewhat higher amount than we are willing to pay here. New York was responsible altogether last year for issues amounting to £17,317,900, equal to over 34 per cent. of the aggregate bond sales of the country, and besides this issued general fund bonds to the extent of another £2,000,000, which, being in the nature of a conversion operation, are not included in the general total. Compared with this, London's loans in 1904, representing an addition of about £6.500,000 to the permanent and £2,000,000 to the floating debt, seem excessively modest.

"How Municipal Profits 'Raise' Rates."

WE cannot help admiring the pertinacity with which the Liberty and Property Defence League pursues a forlorn hope. The Industrial Freedom League should take lessons from this new-comer into the trading controversy arena. The League has "discovered another way of showing how municipal trading and profit-making raise rates," and it is "to compare the rates levied some years back in certain towns with those levied now." Now, obviously the only way of proving that municipal trading increases rates is to show that municipal trading enterprises, taken in the bulk, have produced losses which have to be made good out of the rates. This, however, is not the League's method. The official explanation of how it is done, forwarded to us in an unsigned letter on Wednesday, is too good to miss :—

> In the latest of the annual returns on rates issued by Mr. James Carter, borough treasurer of Preston, 10 towns are given which earn 1s. or more in the £ from municipal undertakings. It will be a fair test if we compare the rates and "profits" for the year 1898-9 with the corresponding figures for the year 1903-4. In the statistics which follow, the first item in the case of each town is the total rate for 1903-4; the second the profit earned in the same year; the third the total rate for 1898-9; and the fourth the profit earned in that year:—Carlisle 6s., 1s. 8d., 4s. 9d., 1s. 8d.; Darlington 5s. 6d., 1s. 7¾d., 4s. 6d., 1s. 9d.; Bolton 7s., 1s. 1½d., not given, not given: Dewsbury 8s. 1d., 1s. 1d., 8s. 8d., 2¼d.; Leeds 8s., 1s., 7s. 2d., 2⅝d.; Liverpool 7s. 4½d., 1s., 6s. 3¾d., not given; Macclesfield 7s. 6d., 1s. 4d., 7s., 5 1-10d.; Nottingham 7s. 4d., 1s. 1½d., 6s. 11½d., 1s. 1d.; Wigan 6s. 2d., 1s. 6d., 5s. 4d., not given; Warrington 7s. 10d., 1s. 0⅝d., 6s., 3½d.
>
> It will be seen that in every case, with the exception of Dewsbury, the rates are higher now than they were in 1898-9, and that in every case but two, viz., Darlington and Dewsbury, the profits have risen also. If space permitted, towns which earn from 6d. to 1s. could be given, showing a similar phenomenon. But the ten towns selected, not arbitrarily, but on the fixed principle of earning 1s. or more in the £, ought to be sufficient to establish the proposition that municipal trading and profit-making raises rates, and that just in proportion as profits rise so do rates.

Let us see how far this ingenious contention holds good.

Rates that Would Have Been Higher.

ACCORDING to the Liberty and Property Defence League's own figures, the rates of the towns quoted were as follows during 1898 9 :—

	s.	d.
Carlisle	4	9
Darlington	4	6
Dewsbury	8	8
Leeds	7	2
Macclesfield	7	0
Nottingham	6	11½
Warrington	6	0

Had these rates not been reduced by the profits from municipal enterprise, they would—again taking the League's figures — have stood at the following amounts :—

	s.	d.
Carlisle	6	5
Darlington	6	3
Dewsbury	8	10¼
Leeds	7	4⅞
Macclesfield	7	5 1-10
Nottingham	7	1½
Warrington	6	3½

These are the plain facts of the case, and how in the world they prove that these profits increased, and not reduced, the rates, it passes our comprehension to discover. The League has simply shown —and everybody knows that—that the rates are increasing. What the League cannot see, apparently, is that these rates would be so much higher in every case were it not for the profits derived from municipal trading. All poor Mr. Carter did was to show the amounts by which it has been possible to make these reductions. We have proved from the official figures time after time that the rates are increased by services—such as sanitary, Poor Law, and educational services—that have nothing whatever to do with trading. But it is equally incontrovertible that trading enterprises produce profits by which rates are reduced. Consequently we are justified in contending that one way to reduce rates is to establish more municipal trading undertakings.

Poor Relief and Disfranchisement.

DURING the last twelve months a board of guardians here and there in England has passed a resolution favouring the prevention of disfranchisement following on Poor Law relief. Trade unions, as everyone knows, feel very strongly on this question, and have passed quite a number of resolutions of protests. At last stronger action is to be taken. Mr. Sydney Buxton, M.P., has forwarded to the Local Government Board a memorandum urging early legislation to prevent the recipients of temporary relief losing their rights of citizenship. Viewed calmly, and without bias, it is easy to see that injustice is being done in a great many cases. An honest man gets out of employment. His best efforts to find work are unavailing. The guardians, having no alternative to offer, are obliged to give him, after due inquiry, out-door relief in order to enable him to tide over the period of unemployment, and to save his home and keep his family from starvation. Honest poverty, we are more and more coming to realise, is largely the result of social advancement, enigmatical as it may sound. In London, the wealthiest city of the world, there is worse and more widespread poverty than in any other present-day city. Mr. Long, M.P., within the present week has spoken of his fellow-countrymen "who suffer so much in patience and almost in silence." Why should they have added to those sufferings one pang by denying them the common rights of citizenship? We must be careful, however, to extend the privilege only to temporary distress, and this is a point that Mr. Sydney Buxton does not overlook in his praiseworthy memorandum.

A Banker's Lament.

MR. ARTHUR KEEN, the chairman of the London, City, and Midland Bank, did not quite accurately state the position of corporations in regard to short loans at the meeting of his shareholders the other day. He said that:—

> Formerly corporations used to apply to the public for subscriptions to large loans for long periods at low rates of interest. Latterly they had come into competition with the banks, and had asked for loans for short periods at high rates.

Mr. Keen probably knows that the new method is bringing money to the corporations at a lower rate of interest than would be the case if they went to the open market. From the municipal standpoint, the new system is cheaper than the old one under the present circumstances. The bankers, who threatened to cut off supplies if the local authorities did not desist from trading enterprises, have no right to complain if the money has been obtained elsewhere. The result of their action may not be to their liking, but they have brought it upon themselves entirely. Municipalities have other people besides bankers to consider—the general body of ratepayers, for instance, whose public services cannot be endangered because the bankers do not approve of them.

POOR LAW OUTLOOK.

Foreshadows of the Approaching Central Poor Law Conference and Some Discussion of the Discussions. Should the State Provide Labour Colonies or Interfere in the Problem of the Unemployed? Stone-Breaking as a Labour Test.

Central Poor Law Conference.

SOME important subjects are to be discussed at the forthcoming Central Poor Law Conference for 1905, to be held on the 21st and 22nd prox. in the council chamber of the Guildhall of the City of London, under the presidency of Sir Edward Fry (late Lord Justice of the Court of Appeal). But none will be listened to with more rapt attention than that on "The Position of the Poor Law in the Problem of Poverty," introduced by the two stalwart champions of Poor Law reforms, Mr. F. H. Bentham, chairman of the Bradford Board of Guardians, and Mr. George Lansbury, of Poplar, councillor and guardian. Poplar's first Poor Law labour colony at Laindon is a standing witness that guardians are seeking for more flexibility in the treatment of poverty. There should be other alternatives possible than mere in-door or out-door relief. Some of the more advanced leaders in the Poor Law world are losing confidence in stone-breaking or oakum-picking as labour tests. Selected as offering the least competition with other labour, the work presses hardly upon the skilled artisan. Access to the land in the form of labour colonies gives more hope of success. But for the many classes of poverty which exist greater classification in relief of all kinds is most urgently needed.

❦ ❦ ❦

Mental Defectives.

NO one in this country can speak with greater authority on the treatment of the mentally defective under the Poor Law than Dr. J. Milson Rhodes (chairman of the Chorlton and Manchester Asylums Board, &c.), and he is chosen to introduce the subject. Long before the appointment, last year, of the Royal Commission on the feeble-minded we advocated the combination of boards of guardians for the purpose of the proper treatment of these unfortunate classes—a view which Dr. Rhodes may be expected to put strongly at this conference. It was he who was largely instrumental in bringing into being the splendid epileptic colony at Warford in Cheshire, known as the David Lewis Manchester Epileptic Colony. Our readers already know that the Chorlton and Manchester Boards of Guardians combined for the purpose and are now building a colony asylum at Blackburn. Mr. A. F. Vulliamy (Ipswich) will open the discussion of his favourite subject, important enough in all truth—"The Treatment of Vagrants."

❦ ❦ ❦

State Labour Colonies.

AS showing how the eyes of Poor Law reformers are turning to Labour Colonies as a "way out" of many of the problems of the day, it is significant that each of these subjects before the Central Poor Law Conference will involve the consideration of Labour Colonies. On another page of this issne will be found some interesting suggestions on this subject by a correspondent. But the writer seems entirely to ignore the *locus standi* of Poor Law Guardians in this matter, and urges that for the working of the colonies the State ought to find all the money necessary, under the strictest safeguards, and the religious bodies should find the workers. We entirely agree that large and graded colonies are needed, and not even the largest unions could afford to carry out what is required in this respect. But there is no reason in the world why boards of guardians should not combine for the purpose of carrying them out. It may sound well perhaps to say that "the State should not interfere in details, but should be content with righteonsness and results," bnt it is hardly business. Who pays should control and manage. If the State pay for these colonies, the local authorities, in the form of boards of guardians, should at the very least be given control.

Stone-Breaking.

ANOTHER illustration of the difficulties attending stone-breaking as a labour test is to hand this week from the Battersea and Wandsworth Union. Only a few weeks ago one of the unions in the South of England had a strike amongst its workers in the stone yard. Matters had not gone so far in this London union. It appears that difficnlties have arisen through inadequate supervision. A lengthy report was snbmitted by the Stone Yard Committee at the last meeting of the Board. It stated that it had considered the question of the supervision of the men, and found that the staff was inadequate to supervise such a large number, and the master of the workhouse was accordingly instructed to at once engage three additional assistant superintendents of the yard at wages of 30s. per week each, to see that the men carry out the tasks. With regard to the time of commencing work, the committee considered that the hours, nine to 12, and one to 4.30, were less than the ordinary working man would do, and it accordingly fixed the times for working from 7.30 to 12, and one to five. By this arrangement longer time will be given for the men to execute the tasks, it being understood that in the event of men completing their tasks before five o'clock they are to receive their allowances of relief, and to be allowed to leave. The committee, it was further stated, was informed that several men had been reported to the relieving officers for not carrying out their tasks, but, so far as could be ascertained, only three cases had been brought before the guardians, and, with a view of keeping the men up to their work, the master was directed in future to at once report any case direct to the clerk.

❦ ❦ ❦

The Attitude of the L.G.B.

OF course, the Local Government Board does not recognise that the day of the stone-yard is passing, and that of the labour colony coming in. It raised all sorts of objections to the Laindon colony of the Poplar guardians, and it is now urging that the Wandsworth Union should open a second labour-yard. A letter from the Local Government Board to this effect has been received, but the Stone-yard Committee has instructed the clerk to inform the Local Government Board that the guardians consider it would be a great mistake to open another yard at the present time, but that additional officers have been engaged so as to better supervise the yard. Attention having been drawn to the fact that men had been given orders for the yard who were living with children earning sufficient to maintain both themselves and the parents, the committee thought it desirable that special attention should be drawn to this fact by the various chairmen at the weekly relief committees. A long discussion followed, chiefly as to the advisability of lengthening the hours of the men. It seems generally to be felt that the stone-yard was being abused, men going there and not doing the work, and that stricter regulations were necessary. One guardian—a lady—however, exclaimed bitterly, "We put sick and weakly men to wheel those huge barrows; we are a very humane Board."

❦ ❦ ❦

Relief Half in Kind.

OWING to the resolntion adopted at a recent meeting of the Manchester Board of Guardians that married men with families be compelled to take half the relief in kind in bread and oatmeal, there has been a large increase in the amonnt of these two articles distributed. The weight of bread given out last week was 9,267lb. against 5,600lb. in the preceding week, the respective figures for oatmeal being five loads 123lb. and one load 96lb. Sugar and tea showed a corresponding increase. This is some indication that the distress in Manchester is widespread. As our readers know, it was alleged a few weeks ago that the Manchester Lord Mayor's Fund was going to people who were getting relief from the guardians. The member who raised the matter (Mr. Russell) remarked at the last meeting of the Board that there had been no reflection intended on the administration of the Lord Mayor's Fund at all.

❦ ❦ ❦

Liverpool and Labour Colonies.

AS the outcome of a resolution passed at a recent Town Hall conference at Liverpool with regard to the unemployed, the members of a special committee appointed to consider the establishment of a farm colony in the neighbourhood of Liverpool met a few days ago at the Town Hall, under the presidency of the Lord Mayor. The Lord Mayor's secretary, in explaining the constitution of the special committee, said the Corporation of Bootle had made no nomination, and the secretary of the Dock Board had written to the effect that the board did not think it necessary to make a nomination, as the scheme did not seem to be within their province. Subsequently it was resolved, with one dissentient, that the difficulties in the way of establishing a farm colony in the neighbourhood of Liverpool were such that the committee could not see its way at present to recommend the adoption of a scheme. This demonstrates more clearly than before that it is the duty of Poor Law guardians to carry out this reform.

❦ ❦ ❦

The State and the Unemployed.

THE Liberty and Property Defence League, lest we forget, is pointing the moral of the State interference with the unemployed in Paris in 1848 in establishing public workshops. These are the effects which it tabulates in a small pamphlet that reaches us:—

> The stoppage of private trade.
> The demoralisation of workmen.
> Government reduced to the verge of bankruptcy, and the national workshops consequently abandoned.

There is some point in the warning the league issues of the danger to-day of our returning to the system, or lack of system, of indiscriminate out-relief such as obtained before the reform of the Poor Law in 1834. The words "out-relief" are not, however, mentioned.

❦ ❦ ❦

Danger of Retrogression.

"A STATE of things," it says, "existed in England which vague, unreasoning, sentimental, misdirected philanthropy bids fair again to bring about." We agree that—

> Surely everything [*sic*] points now to the necessity of a further inquiry into the state of the poor and the present Poor Law administration, and whether or no any changes should be made in the law or in the method of its administration, if we do not wish to see brought about a state of things such as existed in 1834, and is so vividly set forth in the Royal Commission's report.

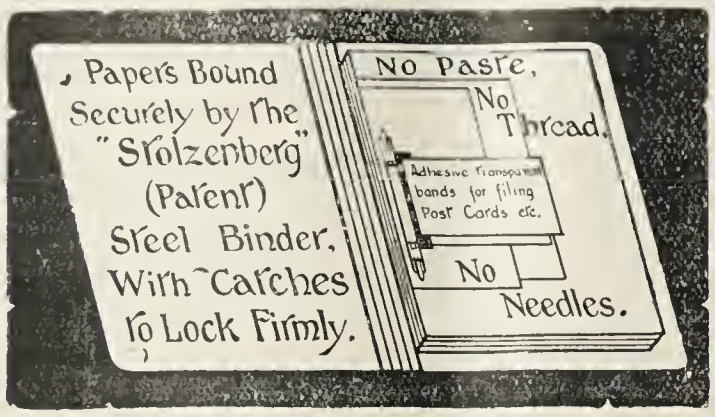
The word "everything" is used somewhat elliptically, but it is mere exaggeration to add to this, as does the League, that such inquiry is more needed because the Benefit Societies Bill was got through last Parliamentary session.

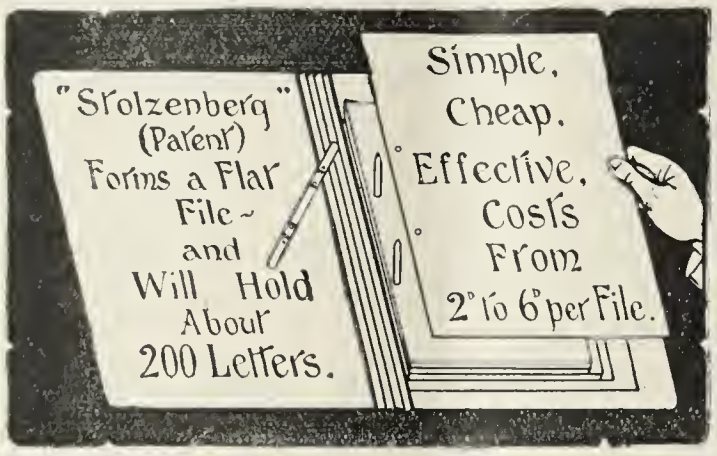
❦ ❦ ❦

Why?

WITH the one short sentence of explanation—*i.e.*, that the Bill completely alters the principle on which out-door relief is to be in future given—it leaves to the reader's imagination why this Bill is so pernicious. The Bill in reality only introduces the sound principle that members of Friendly Societies are to reap some advantage from their thrift when they come before the guardians. The connection between this part of the subject and the action of the State in Paris in 1848 is a little difficult to follow. The pamphlet is less than four pages in length, which limitation might have been expected to prevent wandering. Already on this Poor Law page some reasons have been given why we do not favour the State taking up such matters as labour colonies for the unemployed. But it was not because we feared an insurrection snch as followed the closing of the French national workshops in 1848.

THE STOLZENBERG SYSTEM OF FILING


Papers Bound Securely by the "Stolzenberg" (Patent) Steel Binder, With Catches to Lock Firmly.
No Paste,
No Thread.
Adhesive Transparent bands for filing Post Cards etc.
No Needles.



EXTENSIVELY USED BY

Government Departments, Borough Corporations,
County Councils, Boards of Guardians,
Education Authorities, Technical Instruction Committees,
and the Largest Private Business Houses.

The Stolzenberg Filing System stands alone. It is admitted by authorities on business method to be the best. You can start with one simple unit to-day, as shown in the illustration, and by orderly, logical expansion build it up to a filing system adequate for the work of a large government office.

Note the unique features.—One file for each client or subject. Every letter or paper filed in the order of its receipt. Less space, less time. less expense. At your finger ends there is a complete record of the memoranda on any one subject in one compact file—not in six or a dozen bulky volumes.

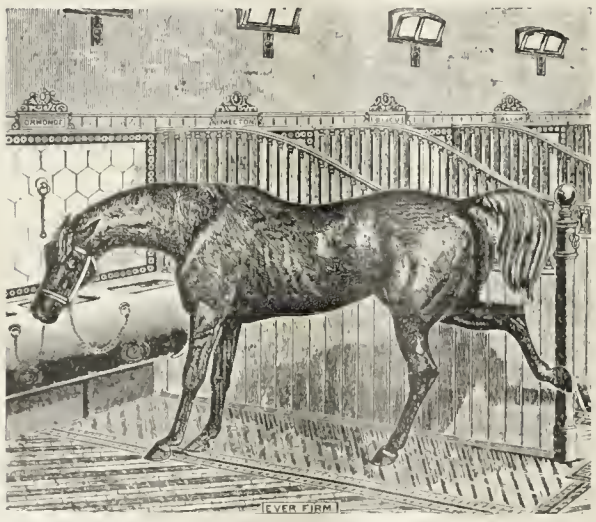
Sample Set of Six Files and Slit Perforator, 3s. post free.

Literature on Filing and Miniature Specimen free to readers of the MUNICIPAL JOURNAL from

The STOLZENBERG (Patent) FILE CO.,
50, BISHOPSGATE STREET WITHOUT, LONDON, E.C.

The ST. PANCRAS IRONWORK CO. LTD.

IMPROVED PATENT
STABLE FITTINGS



STABLE · COWHOUSE · &
PIGGERY FITTINGS.
HARNESS · ROOM · FITTINGS.
PAVING · DRAINAGE · & VENTILATION.
GENERAL CAST · & WROUGHT · IRONWORK.
CATALOGUES · SENT · ON · APPLICATION.

171 · ST · PANCRAS · Rd · LONDON · N · W ·

DIALITE

THE
STANDARD
CABLE
FOR ALL
PURPOSES.

THE ST. HELENS CABLE CO., Ltd.,
WARRINGTON.

ELECTRICITY SUPPLY.

Meter Rents and "Minimum Charge." The Public has yet to be Generally Educated in the Elementary Principles of Electricity Supply. Interesting Lessons from a Year's Work at Beckenham, Carlisle, and Barnes. Retarded Undertakings.

IT is not given to all undertakings to earn a profit, but those which do not have usually some good explanation to offer why the accounts show a deficiency. This week the summaries presented to our readers display the reverse of the usual story which is taught by municipal electricity supply, but they are none the less interesting, as they depict what, after all, are merely the early stages in the growth of systems which eventually will show as satisfactory a yield as their neighbours similarly situated. After all, the deficiency at Barnes is only 150 odd pounds; Carlisle is selling at a very low rate, and its loss is but little more; while Beckenham is one of those hybrid undertakings in which it is difficult to say whether the company or corporation element has exercised the greater influence. A loss of £1,585 is a serious matter with an output of under 300,000 units, but the capital charges are unduly heavy, and everything goes to show that it is merely a dearth of custom that retards this undertaking. The previous Beckenham accounts showed the smaller deficit of £696. How has it snddenly increased to more than twice this sum? The increase in revenue was £2,038 and in expenditure £1,363, leaving the gross profit more by £675. But the capital and special charges are now £4,076 instead of £2,512, an increase of £1 564; the difference between this and the extra gross profit or £889 accounts for the larger deficiency. Had the undertaking been profit-earning previously, it is quite probable that in the first year of extensions it would have turned backwards and recorded a loss: as it was not so, the retrograde movement has inevitably caused a larger loss.

❦ ❦ ❦

The Position at Beckenham.

FROM the printed accounts, the results were as follow:—

The revenue derived from sales of current, &c., amounted to	£6,682
And the working expenditure to	4,191
Leaving a gross profit of	£2,491
Out of this sum the followiug requirements should have been met:—	
Interest on mortgage debt	£1,811
Instalments of capital repaid	2,245
Bad debts	20
Total of capital and special charges ...	4,076
Less gross profit as above	2,491
Deficiency for year 1903-4	1,585

The increase in units sold was 98,573, and the average price dropped slightly by ·221d. per unit. The reduction in the expenditure on production, &c., was only ·026 l., while capital charges increased by ·244d., leaving a balance adverse to the undertaking of ·439d., which raised the previous figure of ·837d. to 1·276d. per unit. It must be admitted that even for an alternating system in a residential district the works cost is high, being over 2¼d. per unit. Curiously enough, the ratio of production cost to capital charges is much the same as is met with elsewhere.

❦ ❦ ❦

Receipts.

THE receipts were obtained from the following sources:—

BECKENHAM.	Units.	Yielding.	Per unit.
Private consumers took...	276,458	£5,416 =	4·702d.
Public lamps consumed...	21.576	340 =	3·782d.
Interim total ...	298,034	£5,756 =	4·636d.
Meter rentals	—	876 =	·705d.
Sundry receipts ...	—	30 =	·024d.
Total revenue	298,034	£6,662 =	5·365d.
Units used on works ...	39,684		
Total accounted for ..	337,718	(The maximum load was 256 kilowatts,	
Utilised on distribution	117,786	representing a load factor of 13·29 per	
Total units generated.	455,504	cent.)	

From the figures, and particularly the large number of units not directly accounted for, it might be surmised that the meters are sluggish and bad starters, causing a loss of revenue through non-registered consumption. We do not know whose manufactures are to be found in the district, so the suggestion is quite an impartial one, and in any case, whatever type be employed, if meters are not periodically overhauled they will run slow. The other point which suggests itself is that the transformers take a large magnetising current. In the event of critics desiring to refute these suggestions, we would reply with the Irishman's question, "How, then, is a 25 per cent. loss of units generated to be explained?"

❦ ❦ ❦

Other Figures.

THE allocation of the receipts over the items of expenditure was as follows:—

	Amount.	Per unit.	
Works cost	£3,324 =	2·677d.	
Rates, taxes, and management	729 =	1·413d.	
Total cost	£4,053 =	3·264d.	
Public lamp maintenauce...	138 =	·111d.	
Gross cost	£4,191 =	3·375d.	
Interest charges	1,811 =	1·458d.	3·266d.
Sinking fund charges ...	2,245 =	1·808d.	
Total actual cost of units sold	£8,247 =	6·641d.	
Less deficiency on year's working	1,585 =	1·276d.	
Revenue in all	£6,662 =	5·365d.	

The difference between the revenue in the last two and the first table is accounted for by deducting the bad debts from the receipts, instead of treating it as an item of the costs.

❦ ❦ ❦

Carlisle.

THE electricity works of the Corporation of Carlisle supply the traction system in addition to lighting, the units sold being 362,202 for the former, and therefore in the year ended 31st March last were considerably in excess of the private output, which reached 224,640 units.

The revenue derived from sales of current, &c., amounted to	£7,627
And the working expenditure to	4,831
Leaving a gross profit of..	£2,796
Out of this sum the following requirements should have been met:—	
Interest on mortgage debt	£1,117
Bank interest	663
Sinking fund and instalments repaid ...	1,199
Total of capital charges.	£2,979
Less gross profit as above	2,796
Deficiency for year	£183

The receipts were obtained from the following sources, Corporation departments beiug supplied at 2d. per unit:—

CARLISLE.	Units.	Yielding.	Per unit.
Private consumers and traction took	586,842	£6,325	=2·587d.
Public lamps consnmed ...	74,120	1,127	=3·649d.
Interim total	660,962	£7,452	=2·706d.
Snndry receipts	—	175	= ·063d.
Total revenue	660,962	£7,627	=2·769d.
Used on works	164,171		
Total accounted for ...	825,133	(The Maximum load was 521 kilo-	
Utilised on distribution ...	8.912	watts, equal to a load factor of	
Total units generated ...	834,045	14·48 per cent.)	

The maximum load for lighting was 296 kilowatts, and for traction 225 kilowatts, from which the benefit of the latter can be readily seen, as from this source the units were more than one and a half times those disposed of on the general supply.

The receipts were spread over the following items of expenditure:—

	Amonnt.	Per unit.	
Works cost	£3,440 =	1·249d.	
Rates, taxes, and management	1,132 =	·411d.	
Total cost	£4,572 =	1·660d.	
Public lamp maintenance ...	259 =	·094d.	
Gross cost	£4,831 =	1·754d.	
Interest charges	1,780 =	·647d.	1·082d.
Sinking fund charges	1,199 =	·435d.	
Total actual cost of nnits sold	£7,810 =	2·836d.	
Less deficiency for year ...	183 =	·067d.	
Total revenne	£7,627 =	2·769d.	

❦ ❦ ❦

Barnes.

THE Barnes Urban District Council may be congratulated upon the character of the changes in the accounts for the last financial year. They show a rapid movement towards profit yielding, and indicate that as the business extends the system will be quite able to hold its own in comparison with the other extra-metropolitan undertakings. The output has nearly doubled; from 123,060 it has been increased to 227,476 units, corresponding to a revenue of £4,016, instead of £2,352. This rise of £1,664 in the receipts has been accompanied by extra costs amounting to only £722, whereby the gross profit is better off by £942. The capital charges are greater by only £316, which has left £626 to reduce the previous deficiency of £778 to £152, and this during the current year may be expected to be wiped out, and a substantial surplus remain over. The rates charged are 5d. per unit for lighting and 3d. for power and heat, which are not out of the way for a system dependent upon lighting for the major portion of its business, and situated close to London, where fuel and labour are important elements in the costs sheet.

The accounts for 1903-4 show that the revenne derived from sales of current, &c., amounted to		£4 016
And the working expenditure to		1,962
Leaving a gross profit of		£2,054
Out of this sum the following requirements should have been met:—		
Interest on mortgage debt...	£1,225	
Instalments of capital repaid	981	
Total of capital charges	£2,206	
Less gross profit as above	2,054	
Deficiency for year	£152	

The receipts were obtained in the following proportion:—

BARNES.	Units.	Yielding.	Per unit.
Private consumers took ...	138,797	£2,855 =	4·937d.
Public lamps consumed ...	88,679	924 =	2·501d.
Interim total	227,476	£3,779 =	3·987d.
Meter rentals	—	112 =	·118d.
Service fees	—	116 =	·132d.
Snndry receipts	—	9	
Total revenne	227,476	£4,016 =	4·237d.
Used on works	23,718		
Total accounted for... ...	251,194	(The maximum	
Utilised on distribution ...	12.222	load was 155 kilowatts, equal to a	
Total units generated...	263,416	load factor of 16·75 per cent.)	

❦ ❦ ❦

Total Revenue.

THE rate charged for lighting is so nearly approached in the average that the power load must be inappreciable in amount. It is therefore all the more surprising to find a high load factor. The average price received has fallen ·350d. per unit, being almost equal to the reduction in costs, 349d. per unit; but the largest alteration is in the capital charges, which were 3·686 l., and are now 2·328d., 1·358d. less than before, consequently the deficiency has come down by 1·357d. per unit from 1·517d. to ·160d. per unit.

The amount received was taken up and appropriated thus:—

	Amount.	Per unit.	
Works cost	£1,147 =	1·210d.	
Rates, taxes, and management	605 =	·640d.	
Total cost	£1,753 =	1·850d.	
Public lamp maintenance ...	209 =	·219d.	
Gross cost	£1,962 =	2·069d.	
Interest charges	1,225 =	1,293d.	2·328d.
Sinking fund charges ...	981 =	1·035d.	
Total actual cost of units sold	£4,168 =	4·397d.	
Less deficiency for year ...	152 =	·160d.	
Revenue in all ...	£4,016 =	4·237d.	

Interesting Comparisons.

THE street lighting at Carlisle comprises 48 lamps, at Beckenham 17 arc and 34 incandescent lamps, and at Barnes 200 single Nernst and one arc lamp. Assuming this to be equivalent to 223 single Nernst lamps, the cost was £716 for current and £209 for maintenance and repairs, at the rate of £3 4s. approximately per lamp per annum for current and about 18s. for maintenance, or a total of about £4 3s. each. How this compares with the *average* results of incandescent gas mantles would be an interesting fact if data were available. The capital invested in these undertakings was covered by the items set out below:—

	Beckenham.	Carlisle.	Barnes.
Lands	£2,048	—	£212
Buildings	12,089	—	6,150
Machinery	15,892	—	11,278
Accumulators	—	—	962
Mains and services	29,736	—	15,489
Transformers, motors, &c.	2,245	—	—
Meters	—	—	1,178
Electrical instruments	1,390	—	21
Various	11,945	—	1,837
Total expended.	£75,345	£53,415	£37,127

❦ ❦ ❦

Mster Rsnts and Correspondents.

THE correspondence in the daily Press gives a good idea of the grievances nnder which the public thinks it labours, bnt at the same time it displays the ignorance of many of the writers, especially when they venture to treat of technical questions. A correspondent in one of the dailies last week ventilated his views of the "unjustifiable" meter rents charged by electric lighting authorities. The argument used was that to charge a meter rent is as indefensible as for a tradesman to charge for the use of scales on which he weighs the goods sold. This can easily be disproved, for the tradesman does not keep a separate pair of scales for each of his customers: if he had to do so we fancy he would reimburse himself either directly or indirectly for the heavy capitalisation. And we have heard of such things as weighing out tin-foil and paper as part of the goods sold. If this is not directly charging for packing and weighing, we do not know how to characterise it. There are such fees as booking charges, and those who travel on the Continent know what "seat tickets" are. The fact is, meter rents are akin to programme fees in a theatre; when they are charged they are looked upon as an imposition, bnt little gratitude is given to those who abolish them. The same correspondent had a tilt at the "minimum charge," and voices the opinion that he pays his 10s. 6d. per quarter in the summer "absolutely for nothing." Were he to go to the works he would find plant retained against the occasion when he called for his maximum demand; this is what he pays for. It is a sort of "refresher" or retainer, by the payment of which he recoups the undertakers in some measure for the inevitable loss in the light-load season of the year, and did he not do so the average rate charged would necessarily be increased. It is evident that the public have yet to be generally educated in the elementary principles of electricity supply.

BRADFORD ELECTRICITY.

AN EXPERT INQUIRY.

AT a recent meeting of the Bradford City Council there was not a little criticism of the management of the Electricity Works, and a considerable opinion was expressed that an expert shonld be consulted in connection with the expenditure of a large amount of money on a new scheme of distribution which the Electricity Committee recommended.

The matter engaged the attention of the committee last week, and Alderman G. H. Robinson, the chairman, made a statement pointing out the difficulties which the manager had had to contend against, and said that, as the engineer had their confidence, it was necessary that steps should be taken to vindicate both him and themselves. He therefore moved that the committee, with the concurrence of the engineer, recommend that an expert (consulting electrical engineer) be called in for the purpose of reporting to the Council as soon as possible.

It was stated that the reason an expert was asked for was not because of lack of faith in the present manager, but merely to be certain that the present policy was right.

The resolution was carried.

It was afterwards decided to call in Mr. Burstall, of the firm of Burstall and Monkhouse, Westminster, who is consulting engineer to the London Electric Supply Corporation and others.

ELECTRICAL ENGINEERS INJURED.

ACCIDENT AT BURNLEY GENERATING STATION.

THE staff at the works and members of the Electricity Committee of the Corporation were assembled at the Burnley generating station on Friday to see the trial of an electrically-driven air-compressor. This had been running on a wood floor for some little time, when a proposal was made to move it in order that it should be attached to one of the dynamos.

The engine driver and switchboard attendant accordingly approached the machine, but as soon as the former put his foot on the metal floor-plate he was instantly thrown down, his head striking the floor violently. Mr. Birkett, the electrical engineer, ran to his assistance, and while so engaged his hands came in contact with the metal drawbar of the compressor, and immediately he, too, was violently flung to the ground.

The whole of the current for tramway traction purposes was passing through the compressor, and Mr. Birkett was unable to loosen his hold of the drawbar. He finally became unconscious. An assistant rushed to the switchboard, broke the circuit, and Mr. Birkett was released.

The switchboard attendant and the engine driver both received a severe shock, but Mr. Birkett was the more seriously hurt. Holes were burnt through his clothes, and his knee was seriously injured in consequence of the violence with which he was flung down.

The accident is attributed to an armoured tnbe attached to the compressor accidentally coming in contact with one of the terminals of the motor.

ELECTRICITY FOR LYTHAM.

AN agreement has been come to between the Lytham District Council and Messrs. Foote and Milne, electrical engineers, of London, whereby the latter will produce, store, and supply electricity for all public and private purposes within the urban district of Lytham. The Lytham electric lighting order was allowed to lapse last year, but terms have now been secured from the company referred to, with powers of purchase at the end of 10 or 20 years.

ACTON'S ELECTRICAL UNDERTAKING.

THE first use of electricity in Acton, under the District Council's undertaking, has been made at the new Isolation Hospital, the opening ceremony in connection with which was noticed by the *Municipal Journal* last week. To-day (Saturday) the light will be switched on to the new Central Schools, and next week it is hoped to extend the current to the arc lamps in the principal thoroughfares.

The Council's Electric Lighting Provisional Order was obtained in 1891 by the then local board, and remained in practical absyance until 1903, when other applications to the Board of Trade almost resulted in a revocation of the Order. Upon a definite undertaking by the Council to establish works for the supply of current, the Board consented to its Order remaining in force for a furthsr twelve months. After much discussion as to whether the Council should erect its own generating plant, it was eventually decided to enter into an agreement with the Metropolitan Electric Supply Company, Limited, for a supply of electricity in bulk from its works in North Acton to a transforming station erected by the Council.

The work carried out by the Council during the past six months has entailed a cost of about £50,000, contracts being entered into with the Lancashire Dynamo Company. Messrs. Cowans, Limited, St. Helens Cable Company, the Electric Storage Company, and Messrs. J. Hitchen and Sons. The whole has been superintended by the Council's engineer, Mr. W. H. Trentham, and just recently Mr. J. Martin Blair was appointed resident electric engineer. The latter will have a residence at the Council's works, which are situate at Willesden Lane, near the new Isolation Hospital. The prices for the snpply of current have been fixed by the Council as follows:—Lighting, private cousumers, 5d. per unit; churches and chapels, 4d.; power (subject to special arrangement), 2d. No rent is charged for meters. There appears every prospect of the light being in great demand.

A. & F. MANUELLE
GRANITE SETTS.
LARGE STOCKS OF ALL SIZES FOR IMMEDIATE DELIVERY.
Also Large Stocks of **CURBS, CHANNELS, MACADAM, SIFTINGS, BEDSTONES, TEMPLATES, &c.**
Building Work of every description from Architects' and Engineers' Designs.
Chief Office: 57, GRACECHURCH ST., LONDON, E.C.
QUARRIES:—GUERNSEY, ABERDEEN, LEICESTER, IRELAND, NORWAY, & SWEDEN.
Telegraphic Address—"FELDSPAR, LONDON." Telephone Nos. 274, 206 AVENUE.

TRAMWAY TOPICS.

Where the Dolter Surface-Contact System is on Trial, and a Glance at the Principle of its Construction. A Handsome Nett Profit on First Year's Working at Walsall. The Value of Tramway Depots Under the Auctioneer's Hammer.

THE Dolter surface-contact system for electric tramways has engaged some little attention in this country. Early next month it is to be introduced into Torquay. The system has been working in Paris for more than three years, and a trial line is working at Dresden. During the present week a working model of the system is being exhibited in Birmingham. It consists of a long iron skate or runner, so suspended from the underpart of the car that it just touches the surface of a number of iron blocks embedded in the road, which slightly project above the general surface. Each of these blocks or studs forms the upper part of a small water-tight contact-box or chamber, in which is suspended a bell crank lever. The upper part of this lever, which is of iron, is capable of being magnetically attracted when the surface-contact piece, which is about 6in. by 4in., is magnetised from the skate carried under the car. The lower arm of the lever carries a carbon piece so arranged that it is brought into contact with a fixed carbon piece which is connected permanently to the underground cable. When the car passes over any surface-contact block the magnetism of the skate, acting through the iron surface block, attracts the lever, and so brings the two carbon contact pieces together, completing an electric circuit. As the car passes along the skate successively magnetises the blocks as it comes to them, and so keeps up a connection with the cable. The blocks cease to be magnetised as the skate leaves them, and the levers in consequence fall, cutting off the surface blocks from all connection with the cable.

How the Danger is Overcome.

IT is claimed for this surface-contact system that there is practically no possibility of the contact between the surface plate and the cable being maintained after the passage of the car. As soon as the magnetised skate ceases to exert its influence the magnetised action of the lever ceases, and the contact piece falls by gravity, being suspended very loosely in order to ensure the necessary freedom. To provide, however, against the possibility of the lever failing to fall and break the connection as the car leaves any of the contact boxes, a very efficient and simple device is made use of. At each end of the car is a small separate skate connected directly through the framework of the car with the wheels and rails. In the event of the contact being maintained after the passage of the magnetised skate, the small skate gives a short circuit action by directly connecting the underground conductor and the rails, and, by blowing the fuse provided in the contact boxes, the faulty box is cut off from all connection with the cable, thereby preventing it from acting until the fuse has been restored. The life of each skate is about seven years, and as only a small part of the contact block is exposed to wear, the cost of maintenance is small. The initial cost of the system is not much greater than that of the overhead system, and the cars can be so constructed as to run in connection with a trolley system route. This is being done at present in Paris.

Walsall's First Year.

WALSALL Corporation's Tramway Committee has this week issued its first annual report. It is for the year ended December 31st last, and the result is very striking. After payment of all charges, including interest and sinking fund, there remains a nett profit of £2,269 3s. 9d. The Corporation owns and works the overhead system in the borough, and the adjoining districts of Walsall Wood, Willenhall, and Great Barr. It took over the working on the 1st January, 1904. The total length of route is 12 miles 7 furlongs 5·90 chain—single track, 10 miles 6 furlongs 2·10 chains; double track, 2 miles 1 furlong 38·0 chains. Five miles of the track were purchased from the South Staffordshire Tramways Company; the remainder is all new track, constructed under the powers of the Walsall Corporation Act, 1900. The Corporation also owns 5 furlongs 9·80 chains of single and 4 furlongs 6·6 chains of double track in an outlying part of the borough, which it has leased to the South Staffordshire Tramways (Lessee) Company, Limited. The number of cars is 28, all being new stock. The current for working the tramways is supplied by the Electric Lighting Committee of the Corporation. The Corporation is authorised to construct some four more miles of tramways.

Some Figures.

THE following are last year's principal figures:—

Year ended December 31st, 1904.

	Average per mile.	£	s.	d.
Total capital expenditure to 31st December, 1904		149,774	1	4
Total loan capital, at same date		141,630	0	0
Traffic revenue	9·46	24,923	17	5
Total revenue	9·52	25,089	18	0
Working expenses (excluding power cost)	4·54	11,967	5	4
Working expenses (including power cost)	6·51	17,157	15	6
Average traffic revenue per mile of single track		1,558	0	0
Car miles run		632,368		
Passengers carried		4,514,471		
Total number of units used	1·11	707,654		
Average number of cars in use for 13 hours per day		17		
Average speed per hour		7 miles.		
Average car hours per day		13		
Average number of passengers per mile	7·0			

Disposing of the Balance.

WITH respect to the appropriation of the nett profit of £2,269 3s. 9d., the committee strongly recommends that it should all be carried to the reserve fund, as it considers it will be sound policy to build up that fund at as early a date as possible to the maximum amount allowed by the Walsall Corporation Act, 1900, so as to provide for any possible contingency which may arise. There are weighty reasons why this course should be adopted. Amongst others, this year's profit is to some extent exceptional, as the cost of maintenance of the newly-constructed lines, and the repairs to cars and equipment, has been very small, and it would certainly be unwise not to expect a considerable increase of expense under these items, and, moreover, the charge for interest must be considerably increased next year, as interest on the whole of the capital which has been raised will have to be paid, whereas for part of last year the whole capital had not been expended. Then it is only by an ample reserve fund that depreciation of rolling stock and plant can be adequately provided for, as the provisions of the Walsall Corporation Act, 1900, do not admit of a separate depreciation account being provided independent of the reserve fund. The committee trusts that the result of the first year's working of this new municipal undertaking will be satisfactory to the Council and the burgesses generally, who have been able to secure a more punctual, quicker, and cleaner tramway service than formerly obtained, while the opening up of the outlying districts and the consequent bringing into the town for business purposes of many thousands of people must have been a great benefit to shopkeepers and tradesmen.

Edinburgh Tramways.

YESTERDAY (Thursday) at the eleventh annual general meeting of the share holders of the Edinburgh and District Tramways Company, Limited, the statement of accounts and balance-sheet showed that there has been an increase of profit for the year 1904 over 1903 of £4,263 7s. 10d., and an increase of £11,795 10s. in total receipts. The total receipts during 1904 were £239,499 3s. 10d., and the profit £16,042 19s. 9d., as against £227,793 7s. 10d., and £11,779 11s. 11d. during 1903. The total expenses, including £84,749 1s. 2d. Coporation charges, were £223,456 4s. 1d., as against £216,013 15s. 11d. last year. On 3rd October last the directors inaugurated a new system of parcel express delivery.

Glasgow Soiree.

THE second and concluding portion of the annual gathering in connection with the Gasgow Corporation Tramway department was held in the City Hall a few days ago. Councillor Robert Graham presided, and there was a large attendance. The chairman made references to the departure of Mr. John Young, who, as manager of the department, had raised the Glasgow tramway system to such eminence. In Mr. Dalrymple, however, they had a man in whom the committee had thorough confidence, and in whom, he believed, the employees also had confidence. He was glad that they were able to provide work for 100 unemployed men at this time in getting on with the work of tramway extension, for which Parliament had granted them powers last year.

Glasgow's High Position.

SINCE he had met them last year, the Chairman said, he had had the pleasure of comparing the tramway system of Glasgow with that of three other great cities of Europe, namely, Vienna, Budapest, and Munich, and he was bound to say that the Glasgow system was infinitely superior and more economically worked than any of them. Referring to the difficulties which Edinburgh had experienced with the cable system, which had been adopted there, in order that the city might not be disfigured by the erection of overhead wires, Mr. Graham said that in Vienna the overhead system was adopted outside the city, while inside its boundaries the conduit system was in use. He thought that they had a much better set of men than the cities which he had mentioned, and the wages on the whole for the best men were about two-thirds lower than those paid in Glasgow, while the working hours were longer. He would like to see a more general display of courtesy on the part of the conductors of Glasgow. The motormen, he thought, accomplished their task, which was not an easy one, very well, especially when it was remembered that out of about 18 million persons carried there had hitherto been only one fatal accident.

Newcastle Managership.

THE Newcastle Tramway Committee met last week end and reduced the list of 10 candidates for the tramway managership to five, from whom a final selection will be made by the City Council. The following are the five candidates selected:—Mr. H. E. Yerbury, 34, chief engineer and deputy manager of Sheffield Corporation tramways; Mr. C. J. Spencer, 29, general manager of Bradford tramways; Mr. C. W. Mallins, 43, superintendent and deputy manager Liverpool tramways; Mr. Ernest Hatton, general manager Salford tramways; Mr. G. Conaty, 43, Birmingham.

Tramway Depots in the Market.

AT Manchester, this week, three tramway depots, recently owned by the Bury, Rochdale, and Oldham Tramway Company, were sold by auction. Under the terms of the purchase of the system they had passed into the possession of the local authorities of Rochdale, Bury, Heywood, Whitefield, Royton, Littleborough, &c. The first lot offered was the Rochdale depot, with the land—containing

7,239 4-9 square yards—buildings, and two dwelling-houses. The first bid was £250, and the property was sold for £400. The ground rent is £101 3s. 4d. The second lot offered was the Bury depot, including 3,600 square yards of land and the tramway buildings. The ground rent is £150, and the land is held under lease for 983 years from October, 1898. Adjoining the property is the Drill Hall of the 1st V.B.L.F., and the volunteers offered £5 for the lot. Eventually, after some parleying, £50 was offered from the same quarters, and the property was knocked down for that sum. The Royton depot, including 5,057 square yards and the buildings—ground rent £42 4s. 6d.—was sold for £130.

❦ ❦ ❦

Greenock and the Company.

IN the arbitration case between Greenock Corporation and the Tramways Company, the Board of Trade, it is understood, has awarded the sum of £602 18s. 9d. as the proportion of profits due to the Corporation, while the company is to account for two sums of £75 set aside for maintenance and £1,500 placed to depreciation.

❦ ❦ ❦

Municipal Tramways Amateur Football League.

	Plyd.	Won.	Lost.	Drn.	Goals For.	Agst.	Pts.
Manchester	4	3	1	0	13	7	6
Liverpool	5	2	2	1	8	10	5
Sheffield	2	1	0	1	6	3	3
Wigan	6	1	3	2	8	10	2*
Southport	3	1	2	0	5	10	2

* Two points deducted by order of League Committee, January 17, 1905.

Result of Match played January 19, 1905:—Liverpool, 2; Wigan, 1.

❦ ❦ ❦

Exeter and Heavitree.

IT was mentioned at a meeting this week of the Heavitree Urban District Council that the Exeter City Council had realised its responsibility in connection with the extension of the tramway through Heavitree, and acknowledged that it had given an undertaking to serve Heavitree when it applied for Parliamentary powers. "After what had been said," one of the members observed, "he was pleased to notice that the City Council had acknowledged its mistake."

❦ ❦ ❦

Glasgow Employees' Wages.

THE Tramways Committee of the Glasgow Corporation recommends that the maximum wages of motormen, conductors, and car cleaners be increased 1s. per week. This will make the wages of motormen and conductors who have qualified as motormen range from 24s. to 31s. per week, of conductors who have not qualified as motormen from 24s. to 29s., and of car cleaners from 22s. to 27s.

❦ ❦ ❦

Lancaster Electric Trams.

IT was reported at a meeting of the Lancaster Town Council on Wednesday that inquiries were being made respecting motor 'buses for routes not served by the present trams. The tramway traffic was again more satisfactory, the total passengers carried during the month being 102,304, the receipts being £373 11s. 3d., an increase of 30,871 passengers and £89 10s. 4d. compared with the corresponding month last year.

HOLBORN TOWN CLERK.

A CONFESSION AND A CHARGE.

AT Bow Street, London, on Wednesday, Henry Corbett Jones, town clerk of Holborn, was charged on his confession with stealing, between March and August, 1903, £10,000, the property of the Holborn Borough Council. The accused, looking careworn and distressed, burst into tears upon entering the dock. He is 45 years of age.

Inspector Dew said that at half-past one that afternoon he saw the accused in the office of Superintendent Cole at Bow Street. The superintendent had previously spoken to the witness and handed him a letter. The accused said, "I wish to give myself up for stealing the money mentioned in that letter. It is quite true I have been very ill, but I am perfectly sane, and know what I am talking about. I thought it would be better to come and give myself up." Later he was charged on his own confession with stealing £10,049.

The accused's medical man stated that he (Jones) had been in bed for a fortnight and only got up that morning. The witness came with him to Bow Street. When the accused explained the object of the visit to him he thought it was a hallucination.

The accused was remanded, and was taken to Brixton in a cab.

The Matter Before the Council.

At a meeting of the Holborn Borough Council, on Wednesday night, the Mayor made a statement with regard to the defalcations of the town clerk. He said the Government auditor had reported to him that his audit of the borough accounts disclosed facts of so serious a nature that he thought it his duty to report without delay. The town clerk could not account for various sums received in respect of services rendered to parochial and vestry bodies, in regard to financial adjustments, Saffron Hill property, &c. The loss in banker's interest on these sums amounted to £350. There was a guarantee policy amounting to over £2,000. Altogether the sums involved exceeded £11,000. It was not impossible that other matters of a serious nature had yet to be brought to light. At this point the reporters were asked to retire. When they were re-admitted the Chairman of the Finance Committee said the balance at the bank was good, and there need be no trouble or anxiety about the finances of the committee.—The Mayor announced that the Council had appointed a special committee to inquire into the matter.

MUNICIPAL ELECTRIC TRAMWAY RETURNS.

Undertaking.	Date of Opening.	Length of Route.	Total Length Track.	Year ends.	Last Weekly Return. Receipts.	Passengers.	Corresponding Week 1903. Receipts.	Passengers.	Total Receipts for Year. 1905.	1904.
		Miles	Miles							
Aberdeen	Dec. '99	2·50	5	May 31	1,041	—	1,061	—	47,761	41,991
Ayr	Sept. '01	6	8	—	165	49,471	166	48,494	11,393	10,863
Birkenhead	Feb, '01	13·52	23·53	March 31	866	179,828	981	203,623	44,407	45,147
Blackburn	Mch. '99	13½	13½	March 25	—	—	—	—	—	—
Blackpool	Oct. '84	3	6	March 31	256	—	255	—	44,435	38,384
Bolton	Nov. '99	25	35	March 31	1,502	332,760	1,612	352,959	78,658	78,357
Bournemouth	July '02	11·8	18·2	March 31	831	155,480	840	155,041	52,445	17,637
Bradford	July '98	53¾	65¼	March 31	3,729	—	3,366	—	169,463	142,382
Brighton	Nov. '01	6·5	11·75	—	698	158 278	689	165,405	—	—
Burnley	Mch. '02	10·60	10·60	March 31	882	164,784	822	144,781	—	—
Cardiff	Dec. '01	16	30	March 31	—	—	—	—	—	—
Darwen	Oct. '00	4·5	4·25	Dec. 31	—	—	—	—	—	—
Dover	Sept. '97	3·5	4·5	March 31	155	40,170	162	41,894	9,556	9,682
Dundee	July '00	12·56	23·1	March 31	808	—	768	—	24,512	—
East Ham	June '01	6·6	10·75	March 31	580	215.809	561	215,495	30,113	28,502
Glasgow	Oct. '98; Extens., April '01	72½	143	May 31	13,378	3,526,201	13,374	3,539,136	484,472	461,338
Halifax	—	—			2,497	599,280	2,173	521,520	68,008	61,151
Huddersfield	Feb. '01	—	32	March 31	—	—	—	—	—	—
Hull	July '99	12·25	25	March 31	1,958	469,937	1,979	475,190	92,520	81,670
Ilford	Mar., '03	6·5	10·5	—	318	86,198	310	—	19,084	18,153
Ilkeston	May, '03	3·5	4	—	97	25,519	120	30,982	—	—
Leeds	Aug. '97	37	71	March 25	4,929	—	5,020	—	247,010	233,312
Liverpool	Nov. '98, June '99	66	114	Dec. 31	9,931	2,158,178	9,531	2,067,548	20,203	19,198
L.C.C.*	1897, Jan. '99	—	47¼	March 31	12,620	—	9,084	—	526,542	410,000
Manchester	June '01	72	131·50	March 31	10,806	2,217,718	10,729	2,203,974	513,797	491,829
Nelson	Mch. '02	2·75	3·5	—	96	30,004	93	27,447	5,039	3,709
Newcastle	Dec. '01	17	36	—	3,357	757,356	3,434	766,280	—	—
Oldham	Dec. '00	18	28	—	1,306	259,981	1,029	225,563	53,516	50,370
Portsmouth	Sept. '01	15	28	—	1,311	287,684	1,282	279,283	81,728	75,358
Reading	July '03	7½	13⅓	—	511	119,362	491	113,938	—	—
Rotherham	Jan. '03	7⅓	—	March 25	386	87,899	391	86,758	17,324	14,777
Salford	Oct. '01	32½	59½	March 31	3,683	695,650	3,704	—	172,690	164,282
Sheffield	Sept. '99	32½	59½	March 25	4,178	1,108,550	4,217	1,113,012	200,721	195,868
Southampton	Sept. '98	9⅜	16⅜	March 31	853	159,594	855	166,496	40,369	42,673
Southend-on-Sea	July '01	6·85	—	March 31	—	—	—	—	—	—
Sunderland	July '00	12·27	23	—	1,018	—	1,024	—	53,607	52,226
Wallasey	Mch. '02	9	10·5	March 31	560	107,640	578	110,947	31,660	29,571
Walsall	Jan. '04	12¼	13½	Dec. 31	389	70,907	474	86,638	1,263	1,450
West Ham	Feb. '04	9·78	12·98	—	968	285,220	—	—	45,194	—
Wolverhampton	April '02	11·258	16·848	March 31	614	132,414	392	77,470	—	—

* Also includes the horse lines.

DICK, KERR & Co., LIMITED,

ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Contractors for Municipal Lighting and Tramway Schemes.

Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

SOMETHING NEW.

L.G.B. AND MOTOR WAGONS.

AN ENTERPRISING FIRM.

THE Local Government Board is altering its requirements for the regulation of motor waggons. The maximum weight allowed for each wagon is being increased from three to five tons. To the non-technical mind the significance of this alteration may not be appreciated, but its effect is likely to be very great on the motor industry. It was a sheer impossibility to construct a really satisfactory motor waggon of only three tons weight, but the two additional tons allowed will give the widest scope for improvements. Already small local authorities are giving attention to the advisability of introdncing services of motor waggons for carrying produce, &c., in places where there are no light railways.

The St. Pancras Iron Work Company, Limited, has been smart enough to seize the present moment for turning out a patent steam motor wagon specially designed to meet the new requirements. There are several noteworthy features about the new vehicle.

Everyone who has had the smallest experience with steam vehicles knows that the boiler is the most important and the most troublesome part. Inability to keep steam, want of durability and consequent necessity of frequent repairs, are a few of the common defects of the majority of boilers fitted to steam wagons. After exhaustive trials the firm has adopted a steam generator which has none of these drawbacks.

The engine is of the two-cylinder compound type, and is fitted with a bye-pass valve to facilitate starting. The high pressure cylinder has a piston valve fitted with Lancaster's patent packing rings. Link motion reversing gear is employed. The cranks are balanced to secure freedom from vibration. All bearing and other wearing surfaces are of ample proportions to ensure durability, and will run for long periods without requiring adjustments. The whole of the gearing and engine runs in a dnst-proof and oil-tight casing, with automatic lubrication to all parts of the mechanism. Great attention has been paid to the necessity of providing ready means of access to all the working parts.

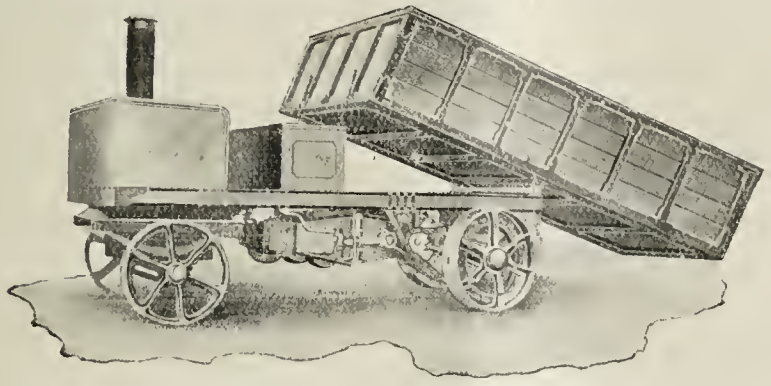
The frame is of strong channel section steel. suitably braced and tied, the front end being carried by the firm's patent fore-carriage, which allows of rough ground being traversed without distortion or straining of the frame. This is a very important improvement, as it reduces the wear and tear very considerably. The axles are forged from special steel of high tensile strength, giving great strength without unnecessary weight.

The steering is on the improved Ackerman system, with case-hardened joints and spins. The management of operating handle and levers has been carefully studied in order to give the driver complete control of the vehicle without moving from the steering wheel.

The bunker capacity is sufficient for a full day's run, and the water tanks hold enough for a run of from 15 to 20 miles, according to the nature of the roads traversed. A water lifter and 25ft. of hose pipe provide a ready means of replenishing the tanks from any roadside pond or stream.

The vehicle is designed to carry a load of 5 tons, and to be capable of drawing a trailer with a further load of 4 tons. Two speeds of three miles per hour and six miles per hour are provided.

As to the great question of cost, it may be stated that for short distances, snch as 15 or 20 miles, the cost per mile per ton is less than railway carriage; and, considering that there is no cost for trans-shipment, this means very considerable saving, speaking generally. By carrying 4 tons on the trailer, the firm has been able to reduce the cost of working to 1½d. per ton mile. The consumption of gas coke is 1cwt. for 10 miles, with 5-ton load.



THE STANDARD MUNICIPAL MOTOR WAGGON.

THE FIVE TON STANDARD WAGGON.

YŌST

THE TYPEWRITER FOR BEAUTIFUL WORK.

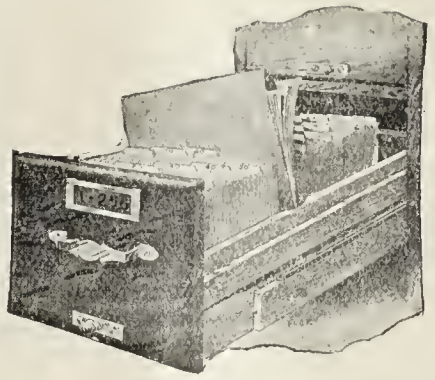
NO RIBBON.
NO COMPLICATIONS.
NO SHIFT-KEY.

85 CHARACTERS.
LIGHT TOUCH.
NOISELESS.

ASK FOR "MUNICIPAL" BOOKLET, POST FREE.

THE YOST TYPEWRITER CO., LTD.,
50, HOLBORN VIADUCT, LONDON, E.C.

Have you ever experienced the charm of being able to call for the entire correspondence of a customer and have it INSTANTLY handed to you in its right order?



This is what the

Referee Vertical Filing System does.

Why not Adopt it in your Office?

Full particulars will gladly be sent on application to

Partridge & Cooper, Ltd.,
191-192, Fleet Street,
London, E.C.

Tenders Wanted.

Latest date for sending in tenders in parentheses.

Advertising on Tramway Tickets. W. H. Snow, Town Clerk, Southend-on-Sea. (February 8.) See advt. in this issue.

Artisans' Cottages—Plans, &c., invited. W. Bagshaw, Clerk to District Council, Public Offices, Wembley. (February 8.)

Brick and Flag Plant. J. Thomas, Town Clerk, Guildhall, Swansea. (January 30.)

Bridge Construction. The Chairman, Rural District Council, 80, Guildford Street, Chertsey. (January 30.)

Coal Conveyor for Electric Light Works. Keighley Walton, Town Clerk, Town Hall, Halifax. (January 31.)

Contracts — Works and Stores. Ernest F. Collins, Town Hall, Chiswick. (February 9.) See advt. in this issue.

Contracts—Road Material, &c. A. B. Bryceson, Town Clerk, Town Hall, Woolwich. (February 9.) See advt. in this issue.

Contracts—Materials, &c. W. M. Wilkins, Town Clerk, Town Hall, Battersea. (February 8.) See advt. in this issue.

Contracts—Goods and Works. H. Thompson, Town Clerk, Town Hall, Hammersmith. (February 8.) See advt. in No. 625.

Contracts—Works and Materials. F. D. Askey, Town Clerk, Southwood Lane, Highgate, N. (February 20.)

Contracts. A. F. Kidson, Town Clerk, Folkestone. (February 15.)

Contracts. J. A. Johnson, Town Clerk, Town Hall, Walworth Road, S.E. (February 15). See advt. in this issue.

Contracts for Supplies. Fredk. Ryall, Town Clerk, Town Hall, Spa Road, S.E. (February 6.) See advt. in No. 625.

Contracts for Supplies. F. E. Hilleary, Town Clerk, Town Hall, West Ham, E. (Feb. 9.) See advt. in this issue.

Contracts for Supplies. G. W. Preston, Town Clerk, Town Hall, Rosebery Avenue, E.C. (February 6.) See advt. in this issue.

Contracts for Materials. H. G. Whyatt, Borough Engineer, Town Hall, Grimsby. (February 6.)

Contracts for Supplies, Works, &c. E. Wright, Town Clerk, Town Hall, Catford, S.E. (February 6.)

Electrical—Motors, Water Purifying Plant, and Stores. W. A. Vignoles, Borough Electrical Engineer, Corporation Electricity Works, Grimsby. (February 1.)

Electrical Power and Lighting Circuits. H. Ward, Clerk to the Council, Council House, Handsworth. (February 2.)

Electric Tramcars. J. Atkinson, M.I.C.E., Borough Surveyor, Town Hall, Stockport. (February 6.)

Erection of Two Public Libraries. E. Docker, Clerk to the King's Norton District Council, 10, Newhall Street, Birmingham. (January 30.)

Extension of Pier. W. L. Macindoe, Town Clerk, Kirkcaldy. (February 4.)

Fire Escape Staircase, &c. H. A. Mullens, Union Offices, Bulcamp, Halesworth, Suffolk. (January 30.)

Gas Plant. J. McG. Jack, 25, Waterloo Place, Edinburgh. (January 30.)

Kerbing, Metalling, Channelling, &c. E. Wright, Town Clerk, Town Hall, Catford, S.E. (February 6.)

Laundry Machinery and Plant, &c. G. F. James, Union Offices, 12, Hagley Street, Stourbridge. (February 2.)

Loans. J. C. Wilford, 17, Fawcett Street, Sunderland. (January 30.)

Loans. Francis L. Thompson, Council House, Sparkhill, Birmingham.

Loans of £50 and Upwards. Haswell Brown, Borough Accountant, Town Hall, Sunderland. See advt. in this issue.

Loan of £9.6. H. C. Broome, Clerk to District Council, Failsworth. (February 11.)

Materials, Labour, &c. W. Stubbs, Borough Engineer, Municipal Offices, Blackburn. (February 11.)

Municipal Buildings—Competitive Designs Invited. H. J. Smith, Town Clerk, Town Hall, Kennington Green, S.E. (March 30.)

Painting Works. Henry J. Smith, Town Clerk, Town Hall, Kennington Green, S.E. (February 2.)

Printing and Stationery. F. D. Askey, Town Clerk, 99, Southwood Lane, Highgate, N. (February 20.) See advt. in this issue.

Removal of Refuse. A. Atkinson, Clerk to the District Council, Public Offices, Cheriton, Kent. (February 6.)

Reservoir. Sir Samuel Johnson, Town Clerk, Guildhall, Nottingham. (February 13.) See advt. in No. 623.

Reservoir, &c. F. Hughes, Clerk to District Council, Ebbw Vale. (February 6.)

Road Works. A. Atkinson, Clerk to the District Council, Public Offices, Cheriton, Kent. (February 6.)

School—Competitive Designs invited. Buildings Sub-Committee, Education Committee, 8, New Road, Oxford. (February 1.)

School Buildings—Remodelling. Competitive Designs invited. J. W. Watkins, Education Office, Llanelly. (January 31.)

School—Competitive Designs Invited. Premiums £50, £30, and £20. Hy. Hamer, Town Clerk, Town Hall, Preston. (February 28.)

Schools—Designs Invited. Premiums £50 and £25. C. G. Watkins, Education Office, Aylesbury. (February 28.)

Sewage Disposal and Refuse Destructor Works. H. J. Saunders, Town Hall, Twickenham. (February 9.)

Sewage Disposal Works. H. F. J. Banham, Clerk of District Council, Royston, Herts, (February 8.)

Sewering, Paving, &c. J. Haslam, Town Clerk, Municipal Offices, Bury. (February 14.)

Sewer. Town Clerk, 3, Park Street, Windsor. (January 30.)

Street Works. G. H Charsley, Clerk to District Council, 11, Mackenzie Street, Slough. (January 31.)

Surface Drainage. F. Stevens, Clerk to District Council, Beckenham. (February 6.)

Tramways—Construction of. J. Moore Hayton, Town Clerk, Court Buildings, South Shields. (February 20.)

Appointments Vacant.

Latest date for applications in parentheses.

Analyst (Public). £200, &c. Trevor Edwards, County Hall, Wakefield. (January 30.)

Borough Engineer and Surveyor. Geo. Sell, Town Clerk, Town Hall, Luton. (January 31.)

Building Inspector. £150. Henry Humphris, Council Offices, Hendon. (February 6.)

Caretaker and Wife. 30s. per week, &c. Chairman, District Council Offices, 25, Sefton Road, Litherland. (January 31.)

Clerk of Works. H. Hamer, Town Clerk, Town Hall, Preston. (January 31.)

Clerk of Works. £4 per week. Town Clerk, Town Hall, Greenwich. (January 27.)

County Surveyor (Assistant). £120. R. MacIlwaine, Council Chambers, Court House, Downpatrick. (January 31.)

Draughtsman. £100. Town Clerk, Huddersfield. (February 7.)

Electrical Engineer. £400. W. M. Wilkins, Town Clerk, Town Hall, Battersea. (January 31.) See advt. in No. 624.

Engineer (Mechanical). £2 per week. R. E. Fox, Town Clerk, Leeds. (February 9.)

Engineer (Resident) and Clerk of Works. £4 4s. per week. S. Southall, Town Clerk, Guildhall, Worcester. (February 1.)

Female Assistant Inspector of Nuisances. £100. C. Sydney Watson, Town Hall, Walthamstow. (February 3.) See advt. in No. 625.

Harbour Engineer. £200. T. J. Mercer, Harbour Office, Sligo. (February 15.)

Inspector of Nuisances. £100. R. M. Barr, Clerk to District Council, Town Hall, Ventnor. (Jan. 31.)

Inspector of Main Roads. £175. John Willmot, County Surveyor, 6, Waterloo Street, Birmingham. (February 8.)

Inspector of Nuisances. £150. Henry Humphris, Council Offices, Hendon. (February 6.)

Inspector of Roads. J. Willmot County Surveyor, 6, Waterloo Street, Birmingham. (February 8.)

Junior Clerk in Engineer's Department. £72 10s. E. H. Lister, Council Offices, Church End, Finchley. (January 31.) See advt. in No. 625.

Master and Matron. £90 and £45 respectively. E. T. Westlake, Clerk to Guardians, 20, Portland Street, Southampton. (February 6.)

Master and Matron. £200 and £100. F. E. Hilleary, Clerk to Guardians, Union Workhouse, Leytonstone. (February 2.) See advt. in this issue.

Medical Officer of Health. £60. F. S. Rix, Clerk to District Council, Beccles. (February 4.)

Nurse (Charge), £26; Assistant Nurse, £20. E. A. Rigby, Clerk to Guardians, Ramsden Street, Huddersfield. (February 2.)

Nurse (Infirmary). £30. G. H. Lough, Union Offices, Upper North Street, Poplar. (February 2.)

Porter (Night Gate). Asylum Board Offices, Embankment, London, E.C. (January 31.)

Record and Stationery Clerk. £120. H. A. Millington, Clerk of County Council, County Hall, Northampton. (February 6.) See advt. in this issue.

Relieving Officer (Assistant). £80. D. Thomas, Guardians' Offices, Bishop's Road, Victoria Park, N.E. (February 6.)

Relieving Officer. £115, &c. G. W. Coster, Union Offices, St. James's Road, Dudley. (February 6.)

Relieving Officers (Two). £100 and £90 respectively. B. Challenor, Clerk to Guardians, Abingdon-on-Thames. (February 4.)

Road Foreman. £2 5s. per week. H. Humphris, Council Offices, Hendon. (February 6.)

Secretary of Gas Light Company. £250. J. D. Ashworth, Engineer and General Manager, Gas Works, Flathouse, Portsmouth. (February 8.)

Secretary of Surveyor's Institution. £600. P. Currey, 37, Norfolk Street, Strand, W.C. (February 15.)

Sewage Farm Bailiff. £300. Chairman, Sewage Works and Farms Committee, Town Hall, Leicester. (February 3.)

Stocktakers. £80. Clerk of London County Council, Education Offices, Victoria Embankment, W.C. (February 4.)

Superintendent and Matron (Married couple). £80 and £40. T. Smith, Clerk to Guardians, Union Offices, The Edge, Sheffield. (February 11.)

Superintendent and Matron (Man and Wife). £100 and £70. E. Kempson, Clerk to Managers of School District, 121, West Street, Farnham, Surrey. (January 28.)

Surveyor. £65. J. E. Lloyd, Clerk to Rural District Council, Lampeter. (February 2.)

Surveyor (Road). £200. W. R. and F. Grant, 1, Exchange Place, Inverness. (February 4.)

Town Clerk. Salary not less than £1,500. J. G. Monro, Town Clerk, City Chambers, Glasgow. (January 31.) See advt. in No. 625.

Waterworks Manager. 30s. weekly, &c. J. D. Rawlins, Town Clerk, Lymington, Hants. (January 31.)

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM.
Edited by ROBERT BLATCHFORD.

You should read **"THE CLARION"** for reliable information as to

MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century,

You Must Read **"THE CLARION."**

Send for specimen copy to **"THE CLARION"** Office,

72, FLEET STREET, LONDON, E.C.

TO CONTRACTORS.

IT WILL PAY YOU
to Subscribe to

THE MUNICIPAL JOURNAL.

Office: 12, SALISBURY SQUARE, LONDON, E.C.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CARTOONS.
VACHER & SONS,
20, Tothill Street, S.W.
(Photo.-Litho.—Special black.)

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS.
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

ROAD SCAVENGER.
F. COWLEY, C.E.,
Launceston, Cornwall.

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION

IS FAR IN EXCESS

OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL, 12, SALISBURY SQUARE, LONDON.

BIRKBECK BANK

ESTABLISHED 1851.

2½ per cent. INTEREST

allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST

allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.
STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary,
Southampton Buildings, High Holborn, W.C.

TEMPERANCE PERMANENT

BUILDING SOCIETY,

4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS

For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years.
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment.
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

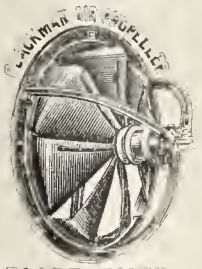
BONDS are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary SHIRLEY FUSSELL.

BLACKMAN



ELECTRIC FANS.

GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

WILLIAMSON

ASHTON-UNDER-LYNE,

Telephone 320.

FOR TICKETS AND PUNCHES FOR TRAMWAYS, &c.

TICKET NIPPERS.

TICKETS, DATING MACHINES, AND ISSUING CASES

FOR RAILWAYS, BATHS, &c.

March 3,
A
DATE TO
REMEMBER.

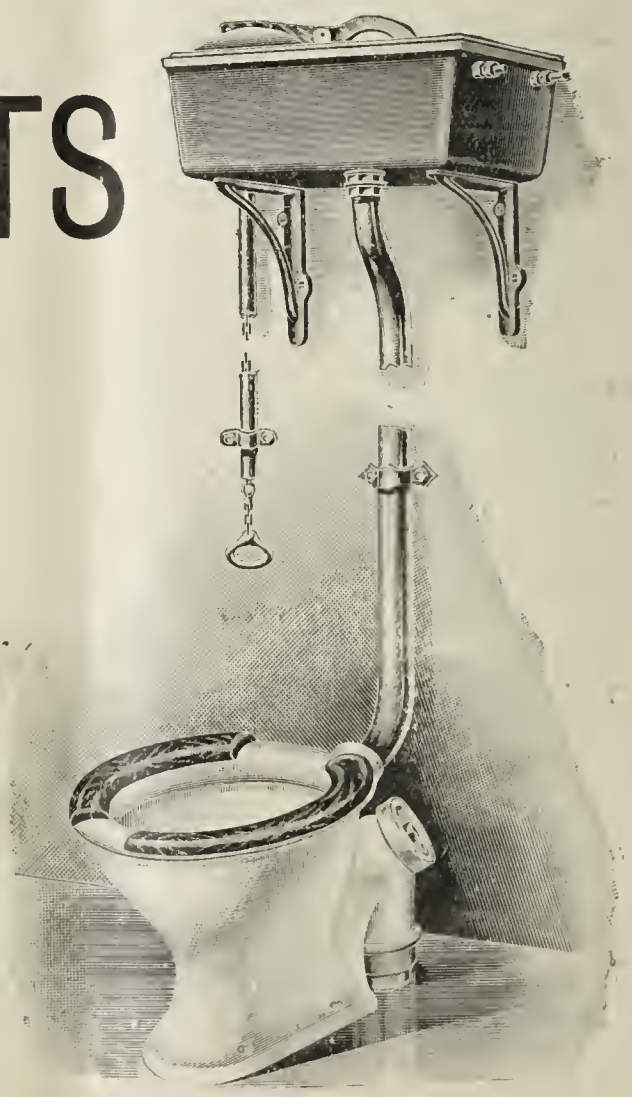
DOULTON'S

SPECIAL

SCHOOL CLOSETS

FOR

INFANTS AND CHILDREN.



These Closets are only 13½in. high, and are specially suitable for children. The pan and trap is in one piece, with brass inspection cap, and cleanses well with a 2-gallon cistern. It is made in two patterns, one with fixed side pieces, the other with lugs to take a hinged seat. Also made with side outlet.

DOULTON'S SPECIAL LIST OF SANITARY FITTINGS SUITABLE FOR SCHOOLS SENT ON APPLICATION.

Every description of High-class Sanitary Fittings for Mansions, Hotels, Clubs, Hospitals, Schools, and Public Buildings of all kinds to be seen in action at Showrooms—

ALBERT EMBANKMENT, LAMBETH, LONDON, S.E.

Printed and Published by EDWARD LLOYD, Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE MUNICIPAL JOURNAL

No. 627.—Vol. XIV. FRIDAY, FEB. 3, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. One Penny.

Official Advertisements

METROPOLITAN BOROUGH OF POPLAR.

TO STATIONERS.

TENDERS are invited for the SUPPLY of GENERAL STATIONERY, for One Year, from 1st April, 1905.

Samples may be seen at the Council Offices during office hours, and specifications and particulars obtained on application.

Contractors are required to pay trade union rates of wages, and observe trade union conditions.

Tenders, endorsed "Tender for Stationery," to be delivered to the undersigned on or before the 26th February, 1905.

LEONARD POTTS,
Town Clerk.

Council Offices,
High Street, Poplar.
1st February, 1905.

WILLESDEN URBAN DISTRICT COUNCIL.

FOR SALE.

VERTICAL BOILER, WASHINGTON LYON DISINFECTOR, AND LAUNDRY APPARATUS.

THE above Council, having recently erected a new Steam Laundry in connection with their Isolation Hospital, are desirous of disposing of the FITTINGS in the old Laundry, including a Vertical Boiler (7ft. by 3ft. cyclinder, 5 h.p.), Washington Lyon Disinfector with accessories, Benham Hot-Water Cylinder, Bradford Hand-washing Machine, vowel type, with Wringer attached, Kitchen Range, &c.

A list of the various articles, which are in good condition and can be inspected by appointment, will be forwarded on application by proposed purchasers to the undersigned.

By order.
STANLEY W. BALL,
Clerk to the Council.

Public Offices,
Dyne Road,
Kilburn, N.W.
1st February, 1905.

COUNTY BOROUGH OF SUNDERLAND

THE Corporation are prepared to receive LOANS of £50 and upwards on security of the Rates of the Borough, at six months' notice or for a fixed period.

For further particulars apply to Haswell Brown, Borough Accountant, Town Hall.

Sunderland.
13th December, 1904.

PROMOTION impossible without good Penmanship. Rapid tuition. Send stamp for Prospectus No. 18. N. Broadbent (Prizeman and Medallist), Alston's College, Burnley.

Official Advertisements

CITY OF WESTMINSTER.

TENDER FOR SEWER WORKS.

THE Westminster City Council invite TENDERS for the CONSTRUCTION of 210 Lineal Yards of 3ft. 9in. by 2ft. 6in. BRICK and CONCRETE SEWER in Arlington Street, Bennett Street, and St. James' Street.

Plans, specifications, and conditions of contract can be seen, and copies of the bills of quantities, with form of tender, can be obtained on and after Thursday, the 2nd February, 1905, at the Works Department, Westminster City Hall, Charing Cross Road, W.C., between the hours of 10 a.m. and 4 p.m. (Saturdays 10 a.m. and 1 p.m.)

The contractors will be bound by the contract in the case of all workmen employed by them to pay wages at not less and to observe hours of labour not greater than the rates and hours recognised by the associations of employers and employees, and in practice obtained in the district where the works are to be executed, and they must undertake, with two sureties, to enter into a bond for the due and satisfactory completion of the works.

The contractors are prohibited from directly or indirectly canvassing members or officials of the Council in support of their tenders, and the tender of any contractor who does so canvass will be rejected.

Each tender, on the official form supplied, is to be delivered at the City Hall, in a sealed cover, addressed to the Town Clerk, Westminster City Hall, Charing Cross Road, W.C., and marked "Tender for Sewer Works. Contract No. 59."

No tender will be received after 12 noon on Friday, the 10th February, 1905,

The Council do not bind themselves to accept the lowest or any tender.

JOHN HUNT,
Town Clerk.

Westminster City Hall,
Charing Cross Road, W.C.
1st February, 1905.

BOROUGH OF HORNSEY.

TO PRINTERS AND STATIONERS.

THE Town Council of the Borough of Hornsey are prepared to receive TENDERS for PRINTING and the SUPPLY of STATIONERY for a term of One Year or Three Years, commencing on the 1st day of April, 1905.

Samples, &c., may be seen, and forms of tender and all information obtained, at the Office mentioned below, on any morning, between the hours of 10 and 12 o'clock, after a sum of two pounds has been deposited with the Town Clerk, which sum will be retained by the Council and deemed to be forfeited if a bona-fide tender is not made by the depositor. If a tender is made which is not accepted, the sum deposited will be returned, and, if a tender is accepted, such sum will be retained by the Council until the contract has been executed by the depositor, and will be forfeited in the event of his, or his sureties, failing or neglecting to execute such contract, or the bond accompanying it, within seven days after he or they respectively shall have been requested to execute the contract or bond respectively.

No tender will be considered except on the prescribed form.

Sealed and endorsed tenders are to be delivered or sent by post so as to be deposited in the tender box in the Town Clerk's Office not later than 4 o'clock p.m. on Monday the 20th of February proximo.

The Council reserve to themselves the right to decline all, or any, or any portion of the tenders so sent in.

F. D. ASKEY,
Town Clerk.

Town Clerk's Office,
99, Southwood Lane, Highgate, N.,
16th January, 1905.

Official Advertisements.

METROPOLITAN BOROUGH OF ST. MARYLEBONE.

APPOINTMENT OF JUNIOR CLERK IN THE BOROUGH ACCOUNTANT'S DEPARTMENT.

THE Council of the Metropolitan Borough of St. Marylebone are prepared to receive Applications for the Appointment of JUNIOR CLERK in the Accountant's Department. Candidates must not be under 18 years of age.

The commencing salary will be £70 per annum, increasing by annual increments of £10 to £90 per annum.

Preference will be given to candidates who have had experience in a Municipal Accountant's office.

The appointment will be made on probation for three months, and if confirmed, will be terminable by one month's notice, and will be made on the understanding that no pension or retiring allowance will attach thereto.

Applications, in candidates' own handwriting, stating age and previous experience, together with copies of not more than three testimonials of recent date, to be delivered at the Town Hall, Marylebone Lane, Oxford Street, W., endorsed "Junior Clerkship, Accounts Department," by 12 o'clock noon on Monday, 20th February, 1905.

By order.
JAMES WILSON,
Town Clerk.

St. Marylebone Town Hall, W.
31st January, 1905.

TOWN CLERKS, Clerks to District Councils, Boards of Guardians, and other public authorities find the advertisement columns of the MUNICIPAL JOURNAL of the greatest service for giving the widest publicity to announcements of APPOINTMENTS VACANT, TENDERS, &c.

WILL JENKINS

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's Cocoa

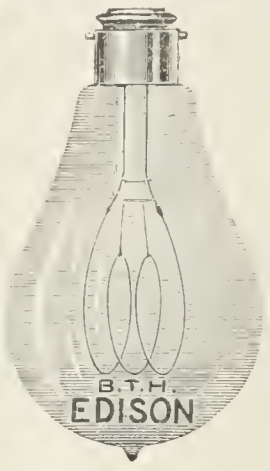
Absolutely PURE — therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."



MADE IN RUGBY.

TRUISM No. 4.

"Cum grano salis."
i.e. With a grain of salt.

This expression is particularly applicable to the statements of certain manufacturers of Electric Lamps who claim that their particular lamp has the longest life. It is not claimed that the

B.T.H. EDISON
ELECTRIC LAMP

has the longest life, but tests by scientific institutions have conclusively proven that it has the LONGEST USEFUL LIFE, which is of far greater importance.

Obtainable from all principal Electricians, Ironmongers, Stores, &c.

Manufactured by the B.T.H. CO., Ltd., RUGBY.

D. STEWART & CO.,
General Drapery, Clothing and Bedding Contractors

WITH COUNTY COUNCILS, BOARDS OF GUARDIANS, COMMITTEES OF ASYLUMS, HOSPITALS AND SCHOOLS.

Blankets, Bedsteads, Bedding, Calicoes, Carpets, Clothing, Dress Materials, Flaxens, Flannels, Furniture, Flocks, Haberdashery, Hessians, Hollands, Hosiery, Linoleum, Pillow Linens, Prints, Shirtings, Sheetings (Cotton), Sheetings (Linen), Table Linens, Towels, Towelling, Waterproof Sheeting, Window Holland

D. S. & Co. at present hold Contracts with many of the largest Institutions in London and the Provinces.

TENDERS INVITED.

D. STEWART & CO., 16, STAINING LANE, GRESHAM ST., LONDON, E.C.

Telegraphic Address—"Centralize, London." Telephone—521 Bank.

To Municipal Authorities, Public Institutions and Companies.

MIDDLETON BROS. respectfully request that they may be favoured with Forms of Tender for

OILS, PAINTS, COLOURS, VARNISHES, LEAD and GLASS, LUBRICANTS, SOAPS and CHANDLERY, OILMENS' SUNDRIES, and DISINFECTANTS.

MIDDLETON BROS.,

10, 11, & 186, ST. GEORGE STREET, E. (London Docks),

OIL & COLOUR MERCHANTS, PAINT MANUFACTURERS, &c.

Contractors to H.M. Government, Boards of Guardians, Railway Companies, &c., &c., for over 30 years.

READY FEBRUARY 14th.

The MUNICIPAL YEAR BOOK, 1905.

OFFICIALLY REVISED—IMPROVED AND EXTENDED.

INVALUABLE TO COUNCILLORS & OFFICIALS.

EDWARD LLOYD, Limited, 12, SALISBURY SQUARE, LONDON, E.C.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM, Edited by ROBERT BLATCHFORD.

You should read "THE CLARION" for reliable information as to

MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century,

You Must Read "THE CLARION."

Send for specimen copy to "THE CLARION" Office,

72, FLEET STREET, LONDON, E.C.

THE BEST JUDGES OF CIGARS

Now obtain their supplies at

BENSON'S, 61, St. Paul's Churchyard, London.

Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

THE MUNICIPAL JOURNAL
ESTABLISHED AS "LONDON" THIRTEENTH YEAR OF ISSUE

No. 627.—Vol. XIV. FEBRUARY 3, 1905.

GARDEN VILLAGES.

A Valuable Lesson in Housing and Kindred Problems is Given by Mr. Joseph Rowntree's New Garden Village near York. The Houses are not to Occupy more than One-Fourth of the Sites on which they are Built. How a Healthy Democratic Village Life will be Possible.

FOR the past five years the "Mecca" of British housing reformers has been "Beautiful Bournville." With the creation of the Earswick Garden Village Trust another centre of education in the right methods of developing a housing estate has, however, been provided, and Mr. George Cadbury and Mr. Joseph Rowntree—both members of the Society of Friends—will henceforth divide the honour of leading the way in regard to the planning and development of housing areas on hygienic and artistic lines.

The main features of the trust deed under which Mr. Joseph Rowntree has vested the ownership of 120 acres of land at Earswick, near York, 43 cottages already erected, and a large sum of invested capital, in the hands of a body of trustees, closely resembles that under which the Bournville Trust was established. The income from the houses already built, added to the revenue from invested capital, will be used year by year to add to the number of cottages, and will be sufficient to build from 20 to 30 yearly. The present trustees are Messrs. Joseph Rowntree (the founder), B. Seebohm Rowntree, J. Wilhelm Rowntree, J. Stephenson Rowntree, Oscar F. Rowntree, and Arnold S. Rowntree. In the election of future trustees the Society of Friends will play a large part.

That the village will be truly a garden village can be seen from the following provisions of the trust deed:—(1) Not less than one-tenth of the property of the trust, exclusive of roads, shall be laid out and used as parks, recreation grounds, and open spaces. (2) The houses are not to occupy more than one-fourth of the sites on which they are built.

Up to the present, two types of houses have been built, viz., "cottage" houses and "parlour" houses. The cottage houses are let at 4s. 6d. per week, exclusive of rates. The accommodation given in return for the rent of 4s. 6d. is as follows:—On the ground floor is a large living room (12ft. 6in. by 20ft. 6in.), with a bay window, and plenty of cupboard accommodation, a small pantry, and a scullery fitted with a copper, bath, and sink. The copper is fitted with a patent exhaust to carry the steam direct into the flues, thus preventing the discomfort which often arises in small houses on washing days. The bath is fitted with a drop-down lid, forming a table when the bath is not in use. Upstairs there are three bedrooms, each fitted with a fire-place, and there is a large wardrobe on the landing. The walls are plastered internally with adamant cement, which dries very quickly, and assumes a smooth hard surface, and is thus more sanitary than the ordinary plaster. All the rooms are fitted with picture mouldings. Gas is supplied throughout the house, and city water is laid on.

[*Photo by* D. S. Crichton.]
COTTAGE HOUSES, EARSWICK ESTATE.

[*Photo by* D. S. Crichton.]
"PARLOUR" HOUSES, EARSWICK ESTATE.

It will be noticed that no sitting room or parlour is provided in this class of house. The living room is, however, exceptionally large, and the provision of a scullery, containing copper, sink, and an admirably-arranged bath, will enable the housewives fortunate enough to obtain the tenancy of these houses to make and keep the living room practically a comfortable parlour as well. The accompanying illustration of this class of house shows several other good features in the planning of the estate, which has been in the hands of Messrs. Unwin and Parker, the architects of the Garden City at Letchworth.

Grass plots extend from the dwarf railings to the roadway, and trees have been planted at intervals on these grass plots. The houses are built in blocks of four, and, so far, most of them have been provided with about 350 square yards of garden ground. The design adopted is very pleasing to the eye. Next summer pilgrims, coming from great towns like Sheffield and Leeds in search of housing lessons, will find that the red tiles of the roofs, the white fronts of the houses, and the green

of the grass, make together a striking contrast to the dull brick and stone to which they have been accustomed.

It would, of course, have been possible to make these houses much more elaborate and costly. The founder has, however, from the first realised the need for demonstrating that the housing of the people under right conditions can be secured at rents not greater than those already paid by workmen. He has, therefore, "plotted and planned" to build a cottage which can be let at 4s. 6d. a week and give a nett return of between 3 and 4 per cent. He has succeeded admirably, and, in his success, has placed housing reformers in the north of England under a deep debt of gratitude. Henceforward, when the cry "it can't be done" is raised, an excursion to Earswick will be recommended. Councillors will certainly return from York repentant and determined to "go and do likewise."

The estate is not wholly devoted to "cottage" houses. Some "parlour" houses have been erected (*vide* illustration). These contain a parlour in addition to the living room on the ground floor, and are let at a rent of 5s. 9d. per week. The "parlour" houses make delightful little homes, and will probably attract many better-paid artisans, clerks, and shop assistants from the neighbouring city of York to the restful quiet and pure air of a garden village.

The valuable example of Bournville in establishing a village council has been followed. This council will at Earswick consist of 13 members, and the tenants will elect seven of these, whilst the trustees will nominate the minority of six. The civic responsibility of the tenants will be further ensured by their payment of the rates, which are equal to about 8d. per week. In these days of "hard knocks" for rural local authorities, it is pleasant to learn that the Flaxton Rural District Council has cordially welcomed the scheme, and has helped, and not hindered, its development.

A large part of the success attained at Bournville is due to the kindness and courtesy shown by Mr. John H. Barlow, the secretary to the trust. Mr. Rowntree has made an equally good choice by appointing Miss Harlock as agent. Miss Harlock rendered invaluable service in the preparation of Mr. Seebohm Rowntree's well-known book on "Poverty." She is a certificated sanitary inspector, is a member of the York Board of Guardians, and has the right combination of genuine sympathy and common sense. The tenants have already started a club, and as the estate grows other features of a healthy democratic village life will undoubtedly be added. That residence in the village is not in any way specially reserved for the workers at the great chocolate factory of Messrs. Rowntree at Haxby is shown by the fact that a large number of the occupants of the houses already built find employment in various industries at York, which is only a couple of miles distant.

The members of the Society of Friends have always championed political and religious liberty, and it is therefore almost needless to say that the trust deed clearly provides for the administration of the trust on non-sectarian and non-political lines. "Paternalism" is to be conspicuous by its absence. In one of the buildings in the village a Church of England clergyman preaches in the afternoon and a Wesleyan minister in the evening.

Compared with the housing needs of only one of the great towns of England, this garden village estate seems very small. Thus a city like Sheffield would need a dozen of them before the housing problem could be regarded as adequately solved. The great value of Earswick Garden Village rests, however, in the example it affords of the right way to house the people. Opponents of housing reform can no longer plead that the ugly working-class street is the only thing possible "at the price." Municipalities have in Earswick and Bournville examples to copy and improve upon. It will probably be many years before the lesson is fully learned. Much water will flow under the bridges of Tyne, Wear, and Tees before the municipalities in the prosperous North realise the importance of their health and housing responsibilities. With the establishment of this Garden Village Trust at the threshold of the great Northern industrial districts Mr. Rowntree has, however, provided that "ounce of example" which is "worth a ton of theory." It is the task of North of England housing reformers to see that the housing lessons of Earswick are taught and understood in every village and town within a hundred miles of York.

THE fifth conference of the Street Noise Abatement Committee was held at 2, Harrington Gardens, South Kensington, on Monday evening, when the following resolution, proposed by Captain Murray-Cookesley, and seconded by Mr. Felix Moscheles, was adopted:—"That in view of the unsatisfactory character of the existing bye-laws respecting street noises, and the unreasonableness of expecting private individuals to put the same into force, the London County Council, the Corporation of the City of London, and the borough councils be requested to appoint noise inspectors, whose duties would be to inquire into, and suppress by legal measures, all unnecessary and objectionable noises in the streets and public thoroughfares of the metropolis."

WATER SUPPLIES IN TENEMENT HOUSES.

IMPORTANT TEST CASE.

OF far-reaching importance is the decision in a case brought by the Woolwich Metropolitan Borough Council respecting the supply of water from a tap in the yard. It was held by the magistrate that this was not a proper and sufficient supply within the meaning of Sec. 48 of the Public Health (London) Act, 1891, and he made an order to abate the nuisance, and ordered the defendant to pay £5 5s. costs. The town clerk (Mr. Bryceson) appeared for the Borough Council, and Mr. Watkins represented the defendant. Mr. Bryceson stated that the premises on the 13th of December, 1904, were occupied by five families, nine persons. In July the lady inspector found eleven persons. There were three floors and an unoccupied basement. The only water supply was from a stand pipe in the yard, which was approached down three steps from the lowest occupied floor. There were 34 steps from top floor to yard. There was a dilapidated, unusable copper under a lean-to roof in the yard. No other provision was made for water, sink, scullery, or washhouse for washing articles of any kind. The tenants of the upper floors carried water up and stored in open pails. Water cannot be kept clean in this way, and may communicate germs of infectious disease.

Dr. Sidney Davies, medical officer of health (Woolwich); Dr. E. G. Aunis, medical officer of health (Greenwich); and Dr. Hamer, lecturer on public health, St. Bartholomew's, and assistant medical officer for the London County Council, gave evidence as to the insufficiency of the water supply. On behalf of the tenant it was represented that it was not practicable to affix a tap and sink on the stairs, but it was shown that there would be no difficulty in this respect.

There are many such houses with a single tap, and now that the decision in this test case is on the side of enlightenment sweeping reforms may be expected to follow in London. The London County Council has this week decided to call the attention of Metropolitan Borough Councils to the decision, expressing the hope that they will take all possible steps to secure the provision of a proper and sufficient supply of water for the tenants of every floor of a tenement house.

The Public Health Committee of the London County Council has had the matter of water supply to tenement houses before it for some time. It was doubtful whether the provisions of the Act were sufficient to enable sanitary authorities to require a supply of water to the tenants of each floor in tenement houses, and on 14th June, 1904, the Council decided to promote legislation on the subject, but its resolution was subsequently rescinded on 6th December, 1904, as the Parliamentary Committee reported that it was advised that it was by no means clear that the present law was insufficient to meet the case, and as the Public Health Committee was endeavouring to get the matter tested at the instance of one of the metropolitan borough councils.

CELLAR LIVING-ROOMS.

THE QUESTION OF DAYLIGHT—IMPORTANT DECISION.

ANOTHER case—also the first of its kind, decided favourably to public health—was fought out in the Woolwich Police-court, Mr. Rupert Kettle being the presiding magistrate. A man was summoned for failure to comply with a notice served under Sec. 2 of the Public Health (London) Act ("any premises in such a state as to be a nuisance, or dangerous, or injurious to health") requiring him to provide sufficient light to a basement room. The Town Clerk (Mr. Bryceson) represented the Borough Council, and Mr. Sampson defended. It appeared from the evidence that the house was occupied by two families, four persons. The front basement was used as a kitchen and living room, and the back basement as a laundry. The room in question, which was used by three persons, was very dark, and an oil lamp had to be burnt in the day-time. The ceiling was below the level of the ground.

If separately occupied, this room would come under Sec. 96 of the Act, and the window would have to be 1-10th of floor area; the ceiling would also have to be 3ft. above the level of the ground, and this would practically necessitate the top of the window being 2ft. above the level of the ground. Under the Building Act there are stringent regulations for securing light to habitable rooms.

The room in question was so dark that large print could not be read in the middle of the room at three o'clock in the afternoon. On behalf of the defendant it was stated that the present occupant of the room had lived in the house for seventy years, and had had nine children, all living.

For this sin against the light the defendant was ordered to abate the nuisance in one month, and pay £1 3s. costs. The efforts of the Woolwich Borough Council in bringing forward these two important cases is highly praiseworthy.

DEPUTATION EXPENSES.

PRACTICE IN VARIOUS CITIES.

THE controversy on the question of allowances to cover the expenses of members or officials of local authorities when on corporation business is one of long standing. In some towns it is the practice to allow a fixed sum per day—in addition to first class railway fare—to cover their out-of-pocket payments. Others do not pay any fixed sums. It is not easy to arrive at what may be considered "a reasonable sum per day," for it must not, of course, be such a sum as, under the guise of an allowance for expenses, would really amount to a remuneration for the time engaged. The practice at the present time adopted in the large cities and boroughs of England should be of interest to all corporations. We have compiled the following interesting information from a return which the town clerk of Hull (Mr. E. Laverack) has got together with the purpose of helping his council in the matter:—

Bolton.—To members of the Council when in London £1 11s. 6d. per day is paid, with first class railway and cab fares; any other place £1 5s., with first class railway and cabs. Officials £1 1s., with first class railway and cabs. In long distances, such as London, Edinbro', Glasgow, &c., the day of going and returning counts two days; to other places the day of going and returning counts one day. Where a journey out and home again on the same day is made the sum of 10s. 6d. per day, with first class railway and cab fares, is paid.

Bradford.—Members and officials proceeding on journeys out of Bradford, and not having occasion to remain away from the city overnight, are allowed their railway fares, carriage hire, and a reasonable sum, not exceeding 10s., for meals. Members and officials engaged away from the city, and having to remain away overnight, are allowed the expences incurred by them, to an amount of not more than £1 per night in the provinces, and £1 10s. per night in London, in addition to their railway fares and carriage hire. The amount is reckoned according to the nights away.

Cardiff.—Members and chief officials are allowed £1 1s. per day hotel expenses. First class railway fares and cab fares are charged in addition. The days of travelling from and returning to Cardiff are paid for as two separate days. Where a journey out and home again on the same day is made personal expenses only are allowed.

Leeds.—The sum of 25s. per day is allowed to both members of the Corporation and officials to cover expenses, in addition to first class fares and cab fares. The days of travelling from and returning to the town are paid for as two separate days. Where a journey out and home again on the same day is made out-of-pocket expenses only are allowed.

Liverpool.—Two guineas per day are allowed to members of the Corporation. To officials a varying amount is allowed, according to rank in the service. This does not include first-class railway and cab fares. Day of departure and day of return are treated as separate days. Where a journey out and home again on the same day is made railway and cab fares are allowed.

Manchester.—As far as practicable, members charge the amount actnally expended, but in no case does the amount allowed exceed a snm ascertained at the rate of one guinea and a half per day and night, in addition to travelling expenses. Officers are paid out-of-pocket expenses, as certified by the chairman of the committee interested. First class railway fares are included in the term "travelling expenses." Cab fares are allowed to and from stations. The time occupied from leaving Manchester to returning to Manchester is allowed. Where a journey out and home again on the same day is made actual expenditure is allowed.

Nottingham.—The Corporation does not pay any fixed sum per day. Some years ago a scale was made, but it has never been acted upon. It seems to be an understood thing that for a journey to London and home again the same day a charge of £3 3s. should be made. This has become an established custom.

Salford.—Members are allowed £1 11s. 6d. per day and night, in addition to first class railway fares and cab fares. Officers' expenses out-of-pocket as certified by the chairman of the committee interested. The Mayor, when absent from home all night on Corporation business, is allowed £2 2s. per day, in addition to first class railway fares and cab fares. The number of days are reckoned according to the nights away. Where a journey out and home again on the same day is made expenses out-of-pocket are allowed.

At Birmingham, Bristol, Leicester, Newcastle-on-Tyne, Portsmouth, and Sheffield there is no fixed scale, but actual expenses are allowed. At Sheffield the town clerk, by the terms of his appointment, is allowed, if detained for the night, £2 2s., and first-class railway fares and cab fares.

TO OUR READERS.

ENLARGEMENT OF THE MUNICIPAL JOURNAL.

COMMENCING with the issue of March 3, the MUNICIPAL JOURNAL will be enlarged to 36 pages. The expansion has become necessary for several reasons, the principal of which is the striking development of local government during the past several years. Concurrently with that development, we have been obliged to introduce many new features which we are conscious have not received adequate treatment, owing to lack of space. Education is one large new subject to which our columns have been opened, and the Poor Law problem is another. We are constantly receiving letters from our readers asking for more information on particular problems than we have hitherto been able to give, and the authoritative position now occupied by our periodical makes it necessary that these requests shall be complied with.

Our future programme will proceed on the lines of extending our present features, and introducing as many new ones as possible. It also provides for the publication of more of those informative articles on particular subjects which readers throughout the Kingdom—whether councillors or officials—have assured us have been highly useful to them.

These developments will involve an increase in the price of the JOURNAL to 2d.—with a special discount to subscribers. The paper will still, considering the quantity and value of the information and news which it gives, be the cheapest weekly journal of its kind.

The first number of the new series will be arranged upon a novel plan, and will constitute a survey of the present position of municipal enterprise in all its branches. We are arranging for articles by well-known experts, whose names will be announced in the course of a week or two.

Several new features will be introduced which we hope will make the JOURNAL a more effective vehicle for the interchange of opinions and information among all branches of the local government service, and in the meantime we shall be glad to receive helpful suggestions from readers.

DESTRUCTORS AND ELECTRICITY.

To the Editor.

SIR,—Owing partly to the publication of a very instructive paper, read by Mr. W. P. Adams before the Institution of Electrical Engineers, public interest in the above question has been considerably stimnlated. I think, therefore, that it may not be ont of place to point out, with your kind permission, some misconceptions which may arise.

There is a tendency in some quarters to estimate the efficiency of any particular destructor by the number of electrical units per ton of refuse which are produced in the works where such destructor is in use.

The number of units which are produced per ton of refuse burnt depends chiefly on the following factors:—

(1) The calorific value of the refnse.

(2) The conditions as to day and night load, which determine whether all the refnse is used for steam raising, or whether the destructor is working at full power, while the electricity plant is practically idle.

(3) The efficiency of the electrical generating plant, which may require more or less steam per unit generated.

(4) The efficiency of the destructor plant with its boilers and flues.

(5) Last, but not least, the efficiency of the management.

It is, therefore, absurd to attribute to the destructor, either the whole credit for a good result in units per ton, or the whole blame for a poor result, and this is demonstrated by the fact that you will find one destructor of a given make giving a very high figure, and another destructor of the same make, but under different conditions, giving a low figure.

One of the most important factors in the efficiency of a destructor, the cost of labour, is usually ignored when dealing with steam-raising results. In any destructor, increased steam-raising results can usually be obtained by putting on increased labour, and "stoking in spoonfuls." From the steam-raising point of view, the all-important question is, what is the cost of a ton of steam produced by the destructor in ordinary every-day work? Under the heading "Steam from Refuse and its Cost," the *Electrical Magazine*, published on April 26th, 1904, some interesting figures showing the cost of labour per ton of steam, as well as the evaporation per pound of refuse, at a number of combined stations. It was shown that those stations where the highest evaporative results are obtained are not always the most economical, owing to the large expenditure in labour, and it is noteworthy that among those stations where utilisation of steam is complete, the best result came from Fulham.

If the destructor produces a supply of steam at a reasonable cost for labour, it is for the electrical department to utilise that steam, and the credit for good results and the blame for bad results belong by rights to the engineers, who are responsible for the construction and management of the whole combined works, and not to the maker of any particular part of the installation. I think that if the above facts were more generally recognised it would be in the interest alike of electrical engineers, destructor builders, and the public, and would tend to discount a good deal of humbug.—Yours, &c.,

F. L. WATSON,
Assoc.M Inst.C.E.
The Horsfall Destructor Co., Ltd., Leeds.

THE Gas Committee of the Bradford Corporation has decided to extend the system at present in use at the Birkshill Gasworks for the extraction of cyanogen from gas to the gasworks in Thornton Road and Valley Road. The plant, which is patented by a London syndicate, was installed at the Birkshill Works some nine months ago, and has proved so successful in the purifying both of the gas and effluent from the works that the engineers recommended the extension. The plant is worked by the Corporation, the patentees reserving the right of purchasing all cyanogen extracted at a price which ultimately covers the initial cost of installing the plant.

EDUCATIONAL NOTES.

Recreative Evening Classes at Bradford. Teachers' Houses—a Parochial Charge. Gloucester Restricts its Education Committee. Hornsey Arranges to Inspect the Religious Instruction. Montgomery Adopts the Model Bye Law. Surrey's Suggestions for School Attendance Prosecutions. Warwickshire Protests against Local Charge of Training Pupil Teachers. Wiltshire and Nature-Study.

Bradford.—The deputation of the Education Committee, appointed to inquire into the working of recreative evening classes in other parts of the country, has presented its report. The deputation visited Nottingham, London, Newcastle, and Glasgow, and recommended that arrangements be made for instituting municipal concerts in Bradford. It also recommended that the Lilycroft and St. James's evening schools be reorganised on the lines of the Nottingham Leen Side School, and that a recreative evening school on similar lines be opened at Dudley Hill. The latter school to be for boys and girls, each section meeting three evenings a week. The Nottingham school, says the report, is situated in the poorest part of Nottingham, and is open on Tuesday and Thursday evenings from 7.15 to 9.20. The following is the time-table of the school:—Tuesday, 7.15 to 8, recreation; 8 to 9, reading and letter-writing, sewing, and dressmaking; 9 to 9.20, recreation. Thursday, 7.15 to 8, recreation; 8 to 9, sewing and dressmaking; 9 to 9.20, recreation. The recreation includes games, occasional lantern lectures, singing, and recreative competitions, &c.

British University Colleges.—The Board of Education has published (cd. 2,366, 11d.) reports from the fourteen colleges which participated, during the year ended March 31, 1904, in the annual grant, amounting to £27,000, made by Parliament for "University Colleges in Great Britain," and from the three colleges in Wales, which receive a grant of £4,000 each.

Derbyshire.—The Education Committee has decided to offer exhibitions to promising candidates for the teaching profession (especially girls who have had a secondary school education), to enable them to receive practical training in certain schools without the necessity of becoming pupil teachers. The exhibitions are of the value of the fee for training, an allowance of 10s. per week for board and lodgings (when necessary), and railway fare to and from the training school. The period of training will usually be for three months.

East Suffolk.—The Education Committee has asked the Local Government Board whether, in the event of the County Council erecting a teachers' residence, it will be entitled to charge a portion of the cost upon the area for which the school supplies accommodation under Sec. 18 (1) (*c*) of the Education Act, 1902. The Local Government Board's reply is as follows:—"It appears to the Board that Sec. 18 (1) (*c*) of the Education Act, 1902, applies to expenses incurred by the County Council in respect to capital expenditure or rent on account of the provision of a dwelling-house for the teacher at a provided school."

Essex.—The Education Committee has informed the advisory committees that they have full discretion as regards salaries, provided they keep within the Code staffing of the schools, with from 15 to 20 per cent. added, and within the scale of salaries adopted by the county committee.

Gloucestershire.—The County Council has unanimously resolved:—"That the Education Committee do prepare and submit to the Finance Committee of the County Council at its April meeting in each year an estimate of the receipts and expenditure of the committee for the ensuing financial year, inclusive of any arrears unprovided for in the preceding year, provided that at the expiration of the first six months of such financial year the Education Committee may, if they find it necessary to do so, prepare and submit to the County Council a revised estimate of such receipts and expenditure. That no expenditure shall be incurred by the committee which will or is likely to involve any substantial excess in the expenditure shown in such estimate, until proposals therefor have been submitted to and approved by the Council. That the powers hitherto delegated to the committee be restricted as far as may be necessary to give effect to this resolution."

Hornsey. — The Education Committee agreed to recommend the Town Council to appoint Rev. Henry Laurence and Rev. Alexander Ramsay to make during the present year visits of inspection to the Council's schools at the time set apart for religious observances and religious instruction, and to report to the Education Committee as to the manner in which this instruction is being given, and also to hold, if required, a written examination in Scripture knowledge of scholars in Standard V. and upwards in the Council's schools; and that the sum of £25 be paid to each of these gentlemen for his services.

Montgomery. — The Education Committee has agreed that the parent of every child of not less than five nor more than fourteen should cause such child to attend school unless there be a reasonable excuse for non-attendance, a reasonable excuse being: (a) that the child was under efficient instruction in some other manner; (b) sickness or other unavoidable cause; and (c) the absence of a public elementary school within reasonable distance. The model bye-law of the Board of Education was, after considerable discussion, adopted.

Northamptonshire. — The Education Committee reported that, with a view to uniformity, the day on which the diocesan inspection of a school took place should be one of the 10 days in the year which the district sub-committee was authorised, on the application of school managers, to allow as school holidays. The district sub-committee was not authorised by this regulation to refuse at its discretion such applications in the case of non-provided schools, as by Sec. 76 of the Elementary Education Act, 1870, school managers were empowered to fix not more than two days in the year for this purpose.

Staffordshire.—The Education Committee, with a view to carrying out the regulations of the Board of Education, has decided, in place of establishing preparatory classes in connection with the pupil teacher centres, to offer 100 additional exhibitions for intending pupil teachers at the county scholarship examination next April, in addition to the 100 already announced.

Surrey.—The Education Committee has drawn up a memorandum directing the attention of the Standing Joint Committee to the importance of a policy of uniformity throughout the different stages of school attendance prosecutions. The memorandum is being considered by the justices of the various petty sessional divisions. It is suggested that there should be uniformity in (1) the procedure of practice in the courts of petty sessions; (2) the standard of attendance necessary for a conviction; (3) the "reasonable excuse" allowed for a dismissal; and (4) the amount of the fines inflicted. The committee expresses the opinion that suitable fines would be 5s. for the first offence, 7s. 6d. to 10s. for the second, and the maximum of £1 for each subsequent offence; and points out that Parliament has recognised the increasing importance of school attendance by raising the maximum penalty from 5s. in 1870 to £1 in 1900.

Warwickshire.—At the Education Committee a resolution calling the attention of the Board of Education to the heavy charges for the training of pupil teachers was carried. The cost, it was stated, would not be covered by a halfpenny rate this year, and next year a penny rate would not be sufficient. Some counties were shirking their duties in this respect, and paying a little higher salaries to attract teachers trained at the cost of counties like their own. The cost of training a pupil teacher was £10 or £12 a year, whilst the highest Government grant was only £7, and the lowest 50s.

Wiltshire. — The Education Committee, with a view to encouraging a closer attention to the facts and phenomena of Nature on the part of elementary school children under the authority, appointed a sub-committee to deal with the question. This sub-committee now recommends: (a) That, where possible, a school garden (not necessarily for the teaching of horticulture as a subject) be attached to every elementary school of which the head teacher is qualified by attendance at the classes in Nature study and horticulture to teach such subjects; (b) that the General Education Committee assist the establishment of school gardens by paying the rent of the land, and by providing seeds, manures, and all necessary tools and appliances; (c) that every effort be made to induce teachers to qualify, by attendance at the county classes, in Nature study and kindred subjects; (d) that the General Education Committee, when confirming the appointments of new head teachers, should have regard to their capacity to teach Nature subjects or their willingness to qualify in the same.

LIVERPOOL ELECTRICITY.

INCREASED OUTPUT.

MR. A. B. HOLMES, consulting electrical engineer to the Liverpool Corporation, in a report dealing with the estimates of expenditure for the current year, says the electrical output for 1904 exceeded that for 1903 by—for lighting 12 per cent., for power 33 per cent., and for tramways 11 per cent., the output in Board of Trade units being 10,354,490 units for lighting and power, against 8,972,311 the previous year, and 18,979,133 units for tramways, against 17,042,751 in 1903; total 29,333,623 units for 1904, against 26,015,062 for 1903. Expressed as the equivalent number of 16-candle power lamps, the output represented 291,715 lamps on December 31st last, against 262,906 lamps on December 31st, 1903.

The maximum output for lighting and power on any one day was 90,226 units on December 23rd, 1904, as compared with 66,881 units, the maximum output on December 23rd, 1903. The maximum output for tramways was 73,812 units on December 24th, 1904, as compared with 64,236 units on December 24th, 1903. On the occasion of the King's visit to Liverpool on July 18th last, the output for tramways was 70,844 units.

The maximum observed output at any one time for lighting and power was at the rate of 19,900 units per hour on December 22nd, 1904, and for tramways at the rate of 7,200 units per hour on July 18th, 1904.

MUNICIPAL MILK.

THE RESULTS AT BRADFORD.

THE working of Bradford's municipal milk depot during the year ended September 30th last has resulted in a loss of £95 15s., the total income being £1,158 1s. 3d. The sales totalled 1,200 pint bottles of sterilised milk, and 3,800 various-sized bottles of humanised milk. The sales in eggs averaged about £2 per week.

In a report upon the depot, Dr. Evans (medical officer of health) states that if the committee contemplates any further great change in the supply of milk, it should consider whether it would be wise to establish a dairy farm on the lines of those in Denmark. To produce the amount of milk now passed through the depot it would be necessary to keep about forty cows.

MOTOR-CAR TRAMS.

A Novel Suggestion for Abolishing Horse Tramcars in North London and Substituting Motor-Car Trams. A Simple Solution of the Problems of Locomotion. Advantages Claimed of both the Conduit and Overhead Systems without their Special Disadvantages. Avoiding Heavy Expense and Public Inconvenience.

*By Dr. MANSFIELD ROBINSON, Clerk to the Shoreditch Borough Council.**

IN view of the deadlock that has occurred between the London County Council and the local authorities, as well as the North Metropolitan Tramway Company (which also has a voice in this matter, as I believe it would have to pay a percentage of the capital outlay), upon the question whether the North Metropolitan Tramways system should be electrified on the overhead or conduit system, either of which will involve a huge capital outlay, I venture, as a student for some years of the problems of locomotion, to suggest a simple solution of this difficulty, which I believe will have all the advantages of both the conduit and overhead systems without their special disadvantages, and effect a very large saving of the ratepayers' money, as well as benefit the travelling public.

This suggestion is that the present system of tram rails should be left unaltered, and motor car trams used in the place of the present horsed vehicles.

In Use on Railways.

This system has already been introduced on railways by the North-Eastern Railway Company, which has had two rail motors in service for some months past with good results. Those motors were driven by Wolseley petrol engines, which drove a dynamo upon the car generating electricity for its propulsion, but this transformation of power causes a waste, which is obviated by a direct-driven petrol car so common on the ordinary motor cars on roads. For some months past the Great Northern Railway Company has beeu running a light car of this kind, having two four-cylinder petrol engines of the Daimler type, 72-horse power, capable of seating 32 passengers, which ran successfully from Doncaster to London in September last, aud since the 20th September, 1904, it has been making experimental trips on the branch line between Hatfield and Hertford. Some small difficulties in detail have been overcome, and the motor is now running regularly and most successfully on this nine-mile branch line, making four trips each way daily. The machinery for this car weighs only two tons, and is about one-third the total weight of the steam-driven or petrol electric car, and, there being no fire to light or boiler to heat, it can start for a special run at a moment's notice if kept in good order.

Motor Omnibuses.

Motor omnibuses driven by petrol, which are running in a number of places most successfully, are a more important object-lesson still, and these will convey passengers as fast as the 2d. Tube Railway for short distances at just half the price, and I have noticed no disagreeable smells in these omnibuses. Indeed, in some of the steam-driven motor omnibuses petrol is used for fuel. I understand the London Road Car Company is largely increasing this type of car, which, although heavily handicapped by the cost of rubber tyres—which is the chief cost of motor cars—nevertheless pays its way, and promises to run all the other means of locomotion off the road.

When it is remembered that the cost of petrol for an ordinary car is about ½d. per mile run, whilst the cost of rubber tyres is about 1d. for each mile, and that it is a well-established scientific fact that the same power can pull thirty times more weight on a pair of rails than on the ordinary road, it is not difficult to foresee what a great future lies before this form of locomotion when put on rails and relieved of the heavy cost of rubber tyres. The enormous development of ordinary petrol motor cars running on the roads shows that any danger from fire to passengers is so easily avoided as to be practically negligible, whilst such cars are very much easier to control than horses.

* From a report to the Shoreditch Borough Council.

The present depots and repairing shops would go a long way towards storing the motor cars, and I have it on the authority of one of the best tramway managers in this country that the expenses of running the motor cars will not, so far as he can see, be appreciably higher than the electrically-driven system, as they are, of course, driving motors and gear on the latter system.

Avoiding Loss and Inconvenience.

The great advantage of such a system, if applied to the trams of London, would be:—

(1) Complete avoidance of the immense public inconvenience, loss to tradesmen *en route*, and general congestion of traffic caused by breaking up the tramways to lay in the conduit system which is proposed for the larger portion of Shoreditch, and similar (if less) road obstructions and loss by erecting the overhead system. Of course, where the present rails are worn out or insufficiently strong, they would have to be replaced under any possible system. The experience of the boroughs south of the Thames shows what an enormous loss and inconvenience fell on the ratepayers by the length of time the traffic was obstructed during the construction of the conduit system.

(2) Avoidance of the inconvenience of every car being stopped and rendered completely helpless by any breakdown of the current or accident at the central generating station in the case of the conduit or overhead system. Each petrol motor tram being self-contained, is independent of every other car, and if one ceases to work the next car can push it on to the nearest depot or repairing shop without the other traffic being stopped.

Cost of the Proposed System.

(3) Saving of the immense cost of converting the tramways for the conduit or overhead system. The actual cost of the conduit system in South London worked out enormously greater than the engineer's estimate. According to Mr. McKinnon Wood, the total cost is now estimated at £17,000 per mile, including bridge work, of which £13,500 per mile is for track work, and if the whole 56 miles of the Northern tramways were laid on this system, it would cost £952,000, and even on the overhead system it would cost £448,000 to convert. Added to this is the capital cost of the generating station, which is only just being erected by the L.C.C., at an estimated cost of £900,000 for 1,600 cars, or proportionately, with the mains, about £337,000 for the 600 cars proposed for the Northern system. Thus, on a rough approximate estimate, the generating station and the conversion of the tramway for the conduit system will cost altogether £1,289,000, or for the overhead system £785,800.

I learn on the best authority that petrol tram cars would cost about £1,300 each, whilst electric cars cost about half that amount; therefore, the cost of the 600 petrol cars required for the north of the Thames would be about £390,000 more than the electric cars, and adding £10,000 for extra repairing shops, say £400,000 in all, thus showing an approximate saving over the conduit system of £889,000, and over the overhead system of £385,000. Of course, if the present rolling stock could be used as trailers, or fitted with motors, a further large saving would ensue, but I understand the present cars would have to be discarded shortly.

A Possible Alternative.

The vital importance of saving capital outlay governs not only the profit likely to accrne to the ratepayers from the tramway system and the cost of travelling to the public, bnt is also the main factor in the question of competition from other systems: for if the North Metropolitan Tramway Company were bought out it could establish a competitive system of petrol omnibuses like those running so well between Shepherds Bush and Oxford Circus, and owing to the greater speed obtainable when not confined to a pair of rails, such competition might (especially as the present special cost of rubber tyres is likely to be reduced) prove a very serious affair to the ratepayers' great undertaking, overloaded as it would be with a much heavier capital expenditure than a company would incur, and a consequent inability to cut fares down to the lowest figure. Moreover, there would be the saving to the company, when using the road, of the repair and upkeep of the tramway track, which is put by Mr. Seamen, in a recent estimate on the matter, at over 2d. per car mile for capital charges and maintenance on the conduit system, which would more than neutralise the extra cost of rubber tyres for the vehicles driven on the road. Indeed, if it be found that the present rails are worn out, it is worth very careful consideration whether they should be re-laid at all, and whether a motor-driven omnibus system running on the road should not be substituted, as fixed rails are always a great obstruction to other traffic, and on the Continent they have been dispensed with even on the overhead electric traction system for tramcars.

(4) Avoidance of the great loss to tradesmen and inconvenience to the public, and periodical obstruction to the traffic caused by the repairs of the conduit system, and the resulting cost of maintaining the extra rails or mains. As far as I can ascertain, the repair of a conduit rail stops the whole traffic on that route, as temporary rails cannot be laid at the side of the road as is now done when the existing tram lines are being repaired. This is a very serious factor, to which special attention should be given, as it is likely in future to be a source of immense loss and inconvenience to the public.

In the case of the overhead trolley system, there are the objections of great unsightliness and danger to traffic from collision with the wires and posts, besides danger to the public of electric shock or injury from wires breaking and falling in the road, which would be obviated by automobile tramcars.

Shoreditch Council's Attitude.

Since the above was written, the London Road Car Company has become so satisfied with its experience with motor omnibuses that it has ordered 50 more such motors to be delivered by the end of May. Some of these new vehicles will be driven by petrol motors of 24 horse power, of the Darkopp and Germain types, to carry 32 passengers, whilst others will be driven by steam (generated by the combustion of crude petroleum) of 16-horse power, by Clarkson of Chelmsford, carrying 14 or 15 passengers. The speed of these vehicles will be 50 per cent. greater than that of the horse cars, and two motor cars will do the work of three horse cars, whilst the 50 new omnibuses will enable 600 or 700 horses to be dispensed with, and a great saving of space in depots and stables will be effected. The cost of maintenance and running the new cars is said to be re-assuring, especially as to the cost of tyres, which, in view of guarantees given by the manufacturers, is working out at a reasonable figure.

The recent issue of £103,000, extra capital by the London General Omnibus Company, to enable it to build 70 motor omnibuses estimated to earn a profit of £4 10s. per week, which would yield much more than 10 per cent. on the capital involved, affords a further demonstration of the important future attributed to this form of locomotion in commercial circles.

The Shoreditch Borough Council has adopted the following resolutions on the snbject:—

> That the London County Council, the borough councils north of the Thames, and the North Metropolitan Tramway Company be requested to consider the possibility of adopting a system of automobile tramcars, driven by petrol or other engines, with a view to avoiding the heavy expense and immense public inconvenience and loss which will be caused by the construction of a conduit or overhead electrical system.
>
> That the London County Council be requested to arrange with the North Metropolitan Tramway Company for the trial of an experimental petrol or other motor tramcar concurrently with the horse trams.

OFFICIAL & PERSONAL.

THE MUNICIPAL CLUB.

DINNER TO SIR WM. J. COLLINS, M.D., D.L., J.P.

THE Municipal and County Club entertained Sir Wm. J. Collins, M.D., D.L., J.P. (Chairman of the Education Committee, L.C.C.), to a house dinner at its headquarters, Whitehall Court, London, S.W., on Friday evening. The president of the club (Mr. G. Laurence Gomme, F.S.A.) occupied the chair, and among those present were :—

Vice-chairman L.C.C., Mr. E. A. Cornwall; Mayor of Fulham, Councillor Wm. Robert Sayer; Mayor of Hornsey, Alderman F. W. Lawson; Recorder of Folkestone, Mr. J. C. Lewis Coward, K.C., M.A.; Recorder of Deal; Chief Officer Public Control, L.C.C., Mr. A. Spencer; Dr. R. P. Middlemist; Governor H.M. Prison, Pentonville, Capt. Johnson; Deputy Coroner Central London, Mr. Schroder; Town Clerk of Fulham, Mr. R. M. Prescott; Town Clerk of Hornsey, Mr. F. D. Askey; General Manager District Railway, Mr. J. Young, M.Inst.C.E., late Tramways Manager Glasgow Corporation; Assistant Comptroller Education, L.C.C., Mr. G. Attenborough; Agent-General for Australia.

Municipal workers get many opportunities to hear and to make speeches without turning their social gatherings into debating fixtures. There were but two toasts, "His Majesty, the King," and "The Club Guest," and the speeches were short. Both toasts were, of course, proposed from the chair, the chairman voicing the general feeling of his hearers in his hearty welcome to their guest, judged by the constant punctuating applause. Sir William Collins, he said, was known to all Londoners, and, indeed, to all municipal workers, as a distinguished graduate at the university, as a distinguished member of the London County Council, as one of its ablest chairmen, and it was a distinction to that club to welcome him as a guest. (Applause.) If it should happen among the political fortunes of the future that Sir William Collins should transfer his sphere of action to another place he felt quite certain that that "other place" would feel his influence. Proceeding to allude to the needs of London, he said one thing which was to be cleared out was ignorance, and Sir William Collins had come to the front as chairman of the Education Committee. He thought the feeling of the London *gamin* that the policeman was his enemy should be educated out of him, and that he should be taught to regard him rather as a protector. He (the speaker) thought that was a matter for the Municipal Association and for municipal bodies generally. It had been his good fortune to serve in a body where public men—he would not say they were above the average of public men, for that would not be quite fair—but where public men of London had come to the front, and there was nothing of which he was more conscious than the power which resided in the members of the County Council when they came to a new subject, and dealt with it, he would venture to say, so brilliantly. Sir W. Collins was chairman of the Education Committee, and he (the speaker) sometimes asked himself what was the attitude with which he approached the work. Some words of Matthew Arnold might indicate that attitude—

"Weary of myself, and sick of asking what
I am, and what I ought to be,
At this vessel's prow I stand, which bears
me forwards, forwards."

It was the "forwards, forwards" which really marked the ambitions of Sir Wm. Collins. (Applause.)

Sir Wm. Collins, in responding, spoke of his proud satisfaction at being their guest that night. He was a hearty believer in a sound system of local government. Parliament was sometimes paralysed with the volume of work which it endeavoured, more or less, to undertake to conduct, and so they went more and more to local government for the performance of work. It had always been in the history of England "some village Hampden" who had led the way. Mr. Gomme had alluded to the fact that the local government of London had been undergoing certain important changes at the hands of his Majesty's Government. They did not always get what they wanted from the Government. It had been said that the way the Government regarded the London County Council was that of the mother who said, "Go and see what the children are doing at home, and tell them they mustn't." (Laughter.) They (the members of the London County Council) asked the Government for water, and it gave them education—(laughter)—and they were endeavouring to make the best of the subject entrusted to their hands. The Council had yet its spurs to win in regard to education. Some people had criticised them because of the constitution of the Education Committee. Personally he had never been in favour of what was called the *ad hoc* body. He objected to a system under which it was impossible to fix responsibility. He had heard it said that the relations between permanent officials and the representative element should be like that between man and wife. (Laughter.) He was not sure they could be carried so far. (Renewed laughter.) He had also heard it suggested that the relations should be as between mind and matter—(more laughter)—but it was delicate ground to suggest which was which. (Loud laughter.)

An excellent musical programme was rendered during the evening.

TORQUAY EMPLOYEES DINE.

AT the Town Hall, St. Marychurch, Torquay, last week, the Corporation employees and others, to the number of seventy, sat down to their twelfth annual dinner. Mr. H. A. Garratt, the borough surveyor, presided, and was supported by Dr. Dunlop (medical officer of health), Mr. C. MacMahon (chief sanitary inspector), Mr. J. Walton (assistant surveyor), Mr. C. Easterbrook (piermaster), and Messrs. Kendal, Sawyer, and Melhuish (foreman).

Mr. C. MacMahon gave "The Corporation of Torquay.' 'Through all his experience of nearly 50 years in various parts of the country he had found no town to compare with Torquay for beauty. The only thing that remained was to make the place entertaining. He believed Torquay had a great future as a summer resort, and could rival Bonrnemouth, Brighton, and other watering place. In proposing "The Health of the Mayor and Corporation," the chairman said they were doing their utmost to make the town one of the most famous in England, and, such being the case, they should have united support. Mr. Walton proposed "The other Departments of the Corporation," and Mr. Fox (Water Department) replied.

Mr. Kendall proposed "The Chairman," amid enthusiasm.

Replying, the Chairman said it was the twelfth occasion he had presided over similar functions. There had been very little sickness amongst the men, and the club that had been formed had proved highly beneficial. There were 120 members out of a staff of 230; but there should be more.

Mr. Hooper proposed "The Committee Responsible for the Arrangements of the Dinner," and Mr. Walton responded.

Those contributing to the evening's musical fare were Messrs. Shepherd, Windeatt, Steer, jun., Fox, W. J. Hugo, A. S. Watson, W. Payne, F. Callard, Sawyer, Lang, and Dawe. Mr. A. S. Watson proved an admirable accompanist.

BEQUESTS TO OLDHAM.

IT is reported from Oldham that the late Mr. Abraham Crompton, a former mayor of the town, left the following bequests to Oldham institutions:—The Oldham Infirmary, £5,000; the Oldham Lyceum, £2,000; Home Teaching Society for the Blind, £250; Workshops for the Blind, Oldham, £250; Oldham Deaf and Dumb Society, £250; and the Oldham Mission, £250; all free from death duties.

NEW ELECTRIC ENGINEER AT WAKEFIELD.

AT the meeting of the Wakefield City Council, last Tuesday, the Electric Lighting Committee recommended the appointment of Mr. Harry Anderton Neville, first assistant electrical engineer at the Corporation works, as electrical engineer from the 1st of April, at a commencing salary of £300 per annum, rising by annual increments of £25 to £400 per annum. The Council was also asked to apply to the Local Government Board for sanction to borrow a further sum of £18,000 for the purposes of extensions in connection with the electricity undertaking.

A HAMMERSMITH PRESENTATION.

AT the meeting of the Hammersmith Borough Council last week, the Mayor (Councillor J. M. Levy, J.P.) presented to his predecessor in office (Alderman Charles Pascall) an illuminated address containing the following inscription:—

> The Council hereby records its sincere thanks to Alderman Charles Pascall for his invaluable services as Mayor of the Borough during the past year, and especially for his uniform courtesy and impartiality when presiding over the meetings of the Council. The Council records its high appreciation of his untiring efforts in the cause of charity and of his active interest in all matters affecting the well-being of the Borough during his mayoralty.
>
> The Council also hereby cordially thanks the Mayoress, Mrs. Charles Pascall, for the kind and gracious manner in which she assisted the Mayor in the performance of the important public and social duties of his position during his year of office.

The address was illuminated with the Royal monogram, "E.R.," the borough arms, the Town Hall, the Hammersmith Bridge, the St. George's Cross (emblematic of hospital work), a life buoy (emblematic of life-boat fund), the Golden Heart (emblematic of charity), the Jewel of a Past Master of Freemasons, the Union Jack, with oak leaves and acorns intertwined, and the seal of the Council.

"HOW TO GROW BABIES."

A MAYOR'S LECTURE.

THE Mayor of Huddersfield (Mr. Broadbent), who has offered a preminm for all children born in his native parish during his year of office, lectnred on Wednesday evening in Wakefield Mechanics' Institute, under the auspices of the Wakefield Sanitary Aid Society, on "How to Grow Babies."

The Bishop of Wakefield, who presided, urged the great need to raise the ordinary intelligence of parents on the question of rearing their children.

Mr. Broadbent said that was the first time he had ever posed as a lecturer, and he only did so on this occasion on account of the importance he attached to the subject. He was struck by the fact that out of 200,000 children born 50,000 died before they attained the age of one year. He did not believe that compulsory education had tended to reduce this terrible mortality in the slightest degree, for in 1874 the rate was 144 per 1,000, whereas at present it was 149.

He dwelt upon the privileges of motherhood, and pleaded for the better education of present and potential mothers in the common-sense ways of rearing their offspring.

PROPOSED EXTENSION OF DURHAM CITY BOUNDARIES.

A LOCAL Government Board inquiry was held on Wednesday at Durham into an application by the Corporation for the extension of the city boundaries by the inclusion of several outlying areas having an area of 1,052 acres, a population of 3,515, and a rateable value of £14,282, excluding two collieries.

At present the city has an area of 884 acres, a population of 14,650, and an assessable valne for general district rate of £53,317, and £56,299 for the poor rate. Should the boundaries be extended, it is proposed that instead of the existing four wards there shall be six, each ward being represented by three councillors and one alderman.

The estimated annual extra cost to the city by the inclusion of all the proposed new area is £2 302. The rates in the outlying area average about 6s. in the £, while the estimated rates for the city are 7s. 1d. in the £.

"OPEN" OR "CLOSED" LIBRARIES?

Consensus of Opinion from English Towns as to the Best System of Issuing Books from Free Libraries to the Public. "Open or Free Access," or "Indicator." Light on a Notable Controversy. Remarkable Statement from New York. Thousands of Books Missing.

THE fact that the Lambeth Borough Council has decided to introduce the open access system at the new Carnegie Library at Herne Hill has once again raised a vigorous controversy among librarians. The merits and demerits of the "open access" as compared with the indicator system have been discussed and re-discussed at librarians' conferences and in librarians' journals for many years, and now Lambeth has lighted the fires once more.

Some time ago a systematic attempt was made to discover what the lessons of experience on the subject were, and circulars were issued to librarians throughout the country, directing their attention to the controversy. The answers showed that the great majority of towns do not approve of all the borrowers having free access to the shelves. The list of exceptions is worth enumerating. To the question, "Do you approve of all the borrowers having free access to the shelves?" Darlaston wrote, "Yes, where practicable"; Falmouth, "Present accommodation too limited"; Chelsea, "Yes, if local circumstances admit"; Newington, "Yes, but not to fiction and juvenile books in this library"; Maidstone, "Undecided as yet"; Middlewich, "Not in a small library like this"; Nelson, "Modified approval"; Peterborough, "Yes, but not to fiction shelves"; Penzance, "Yes"; Watford, "Yes, with proper supervision"; Wick, "Not to all borrowers"; Wood Green, "Free access is hazardous." One or two other towns, whose names are withheld, have replied in the affirmative.

Towns Adopting the Indicator System.

The following libraries, among others, have adopted the "indicator" system:—Airdrie, Alloa, Arbroath, Aston Manor, Ayr, Barking, Batley, Belfast, Bethnal Green, Bingley, Bishopsgate, Bodmin, Bolton, Bo'ness, Boston, Bournville, Brechin, Briton Ferry, Bromley (Bow), Burton-on-Trent, Bury, Buxton, Canterbury, Carlisle, Castle Douglas, Chatham, Chester, Chorley, Clapham, Clitheroe, Coatbridge, Colchester, Cork, Crieff, Dulwich, Dumfries, Dumfermline, East Ham, Falkirk, Folkestone, Forfar, Fulham, Greenock, Guildford, Hammersmith, Hampstead, Handsworth, Hartlepool (East), Hawich, Hucknal, Ilkeston, Inverness, Ipswich, Kensal Rise, Kilmarnock, King's Lynn, Kirkcaldy, Launceston, Leamington, Leeds Institute, Limehonse, Limerick, Lincoln, Liskeard, Llandudno, Lockerbie, Lossiemouth, Merthyr Tydvil, Mile End, Millom, Minet (Joint Lambeth and Camberwell), Moffat, Moreton Hampstead, Motherwell, New Cross, Newark-on-Trent, Newport, Nuneaton, Oakengates, Oldham, Oswestry, Otley, Paddington, Penge, Peterhead, Pntney, Rochester, Rotherham, St. Giles, St. Ives, St. Martin-in-the-Fields, Salisbury, Shrewsbury, Stirling, Stoke Newington, Stratford-on-Avon, Sutton-in-Ashfield, Swindon, Tonbridge, Tooting, Tottenham, Twickenham, Walney Island, Walsall, Walthamstow, Waterford, West Calder, Whitchurch, Willesden Green, Winchester, Winsford, Woolwich, Worksop, Worthing, and York. Several of the above towns have more than one public library.

In addition to the above list, many continental, American, and colonial libraries use the indicator.

Where Open Access is Given.

The following libraries have adopted "open access" for all or most of the books:—Bournemouth, Clerkenwell, Croydon, Hornsey, Blackpool, Darwen, Kingston, Worcester, Northampton, Hnddersfield, Kettering, Bromley, and Exeter, while Brighton and Southport have adopted the "indicator" for fiction, and "open access" for other classes. In addition, there are a few village and other simliar libraries. We are informed that another small library is about to adopt "open access," as against some twenty large and small libraries which have recently decided to join the great majority of "indicator" libraries.

The following figures are taken from the New York Librarian's report, 1902-3:—"The losses due to theft from open shelves are still large. The number of books reported missing at the monthly inventories was 5,496, against 3,480 reported last year. Of this number, 996 were from branches that were acqnired during the year; but this still leaves 4,500 to be charged against the older branches, an increased loss of 1,000 books. During the year, 494 books previously reported missing were reported recovered, so that the nett loss from all branches has been 5,002."

Increased Danger of Infection.

Several other well-known librarians strongly ppoosed the adoption of "open access" in public libraries for many reasons—one important consideration being the effect it would have in preventing the use of good annotated or analytical catalogues, which, it was contended, were better guides to books on the shelves, and the only ones to books that were out and therefore unavailable. Some of these gentlemen had tried the "open access" system, with disastrous results as regards losses of books, misplacements, and extra cost of binding and new copies, owing to the increased handling of the books. Attention was also called to the greatly increased danger of infection where each borrower was allowed to handle an unlimited number of volumes.

It is worthy of note that after several years' very strenuous advocacy of the system of "open access," not 3 per cent. of the municipal libraries have adopted it, and those which have are, with two or three exceptions, very small and unimportant, the total number of readers in the whole of them not equalling that of one such town as Birmingham or Manchester, which has not adopted this system. On the other hand, some even of this limited number, including one very important library, have, after a trial, abolished the system, and adopted one more conducive to the safety of the books and the interests of the *whole* of the readers. In giving the above figures, libraries which merely allow access to small or special collections are excluded. Almost every library allows free access to directories, railway gnides, and similar publications, while in many all the books on any given subject, in either lending or reference departments, will be procured by the staff for the reader's examination in a convenient room, under perfect supervision. This the readers cannot do for themselves so satisfactorily in an "open access" library, and although it does not give promiscuous access to the shelves to everyone, it gives what is far better, access to all the books in comfort and quiet, which is far more useful and convenient to studious readers, for whose particular use "open access" is chiefly advocated. By this method loss and misplacement of books are entirely prevented.

The following table, which is typical, is suggestive:—

ANNUAL REPORTS, 1903.

Name and Character of Library.	Issue of Books.		Percentage of fiction according to last report.	Period dealt with.
	Several years ago.	Last year.		
OPEN ACCESS.				
Blackpool	93,208	135,800	76·2	Five years.
Bournemouth	143,281	200,606	75·5	Six years.
Clerkenwell	150,124	111,910	67·2	Five years.
Croydon	293,700	406,233	57·8	Six years.
Gloucester	107,119	133,030	82·5	Three years.
Kingston-upon-Thames ...	52,165	75,473	78·3	Five years.
Worcester	165,043	166,741	53·3	Three years.
INDICATOR.				
Battersea	272,159	405,971	63·2	Six years.
Birmingham	1,226,410	1,343,510	48·6	Four years.
Blackburn	115,403	165,270	54·4	Five years.
Cardiff	222,101	397,885	53·7	Six years (not including school libraries)
Leeds	943,406	1,176,295	53·8	Five years.
Nottingham	382,130	418,732	49·5	Five years.
Shoreditch	101,509	159,910	61·2	Six years.

N.B.—For want of the necessary reports, the periods dealt with could not be kept to the same number of years in every case, but this does not affect the value of the comparison.

INLAND SALT-WATER BATHS.

A SCHEME FOR SALFORD.

SALFORD is about to proceed with an ambitious scheme for the provision of a set of salt-water baths. The site of the building will embrace about 2,000 square yards, and the total cost is estimated at £20,000.

The bnilding will be detached, containing a second class swimming-bath, 75ft. by 32ft., a first-class bath, 65ft. by 25ft., with six first-class and twelve second-class men and women's slipper-baths. Provision will be made for a storage reservoir of salt water not less than 100ft. in leugth by 40ft. in width and 10ft. in depth, the holding capacity being 250,000 gallons of sea water.

The reservoir will be close to the embankment of the Ship Canal at the Salford Sewage Works, to receive salt water and facilitate the emptying of the steamer by her own pumps. The cost of land, excavations, making the reservoir, and other incidentals will reach £2,000.

The other details of the scheme show a fnll suite of baths, with pipes for fresh water service in case sea water fell short or failed altogether.

AMONG the firms which at this time of the year are busy preparing for contracts to supply boards of guardians and similar bodies with their requirements for the year or half-year, Messrs. D. Stewart and Co., the wholesale warehousemen and contractors, are one of the best known. They are now fairly settled in their new and commodious premises at 16, Staining Lane, Gresham Street, fnlly prepared for an access of business to any amount.

WE have received from the Trinidad Lake Asphalt Paving Company, Limited, one of their calendars for 1905. This is worthy a place above any office desk, for it is artistic in design and neat in execution. Each page contains a calendar for the month in clear type, nnderneath which appears a picturesque view of a locality which has been paved with Mastic Asphalt. The calendar can be obtained by sending a postcard to the firm at their offices, 7, Laurence Pounteney Hill, E.C.

NOTES AND ANSWERS.

What Borough Auditors May and May Not Do. Paying Police Pensions Out of the Borough Fund and Rate. More about Private Street Works and the Liability of Corporations to Take Over. Atte pt to Influence Voters Regarded as a Common Law Misdemeanour. Contracting with Pari-h Councils and the Question of Disqualification.

620. — **MUNICIPAL EMPLOYEES AND POLICE PENSIONS.**—With reference to Sec. 13, sub-section 2, of the Police Act, 1890, I shall feel much obliged if you will kindly inform me whether a pensioned police officer employed in municipal undertakings, such as markets, tramways, electric light, telephone, gas, waterworks, &c. (whether remunerative or unremunerative) is entitled to draw full pension if his pay and pension combined exceed one and a half times his remuneration of the office in respect of which the pension was awarded. If he is drawing full pension illegally, who are the persons to move for the abuse to be rectified?—"RATEPAYER."

Sec. 13 (2) of the Police Act, 1890, provides that, "if a constable in receipt of a pension under this Act is appointed to an office remunerated ont of money provided by Parliament, or ont of a county or borongh rate or fund, he shall not, while holding that office, receive more of the pension than, together with the remuneration of that office, is equal to one and a half times the remuneration of the office in respect of which the pension was awarded." Generally speaking, the expenses of a tramway undertaking are payable out of the borough fund and rate, and, subject to the special provisions of the particular local Act applicable in each case, the expenses of the other undertakings referred to in the above query would ordinarily be payable out of the general district fnnd and rate. It is clear, therefore, that the rule laid down in the snbsection quoted, limiting an ex-police officer's pension, would apply in the case of ex-pensioned constable drawing remnneratiou as a municipal employee. We are not aware of any ruling or decision extending the terms of the sub-section to cases where the pensioned officer is paid out of rates other than the borough rate, and it seems to us, therefore, that in the other instances mentioned by our correspondent — that is, where an ex-constable is employed in connection with municipal markets, electric lighting undertakings, telephones, gas and waterworks, Sec. 13 (2) of the Police Act, 1890, would not apply—assuming, of course, that the expenses of these undertakings are provided for under the local Acts (where such exist) out of the borough fund and rate. If in the circumstances indicated a mnnicipal servant is drawing a full pension, in excess of that which he is legally entitled to, the matter might properly be reported to the borough council, or, if the local police force is under the control of the county, to the county council. The Secretary of State for Home Affairs wonld also be interested in the matter.

621.—**ELECTIVE AUDITOR—Duties and Rights—Emoluments.**—Is it legal for a town council to give the elective auditors notice that they will only be paid a small fee for their work in that capacity. I need hardly point out that it is practically impossible for the two auditors to complete the work in less than a fortnight each half-year, but the council, having appointed a professional auditor, has come to the conclusion that the elective auditors will be got rid of in this way. I know that, according to the Act of 1882, the council cannot do away with elective auditors, and also, according to the Public Health Act, 1875, the fee payable is two guineas a day; but I would like to know, if possible, what chance we have to compel the council to pay the fees if we persist in doing all work which we are elected to do. Kiudly state also if we can claim to do all the Corporation accounts, including muuicipal undertakings, such as gas and water, electric lighting, &c. What bearing on our case has the Devonport appeal? Did the elective auditors in that e actually do the work required by the Acts?—"ELECTIVE AUDITOR."

Sec. 246 of the Public Health Act, 1875, provides that "Each of such auditors (*i.e.*, the auditors of the borongh) shall, in respect of each audit (of the accounts of the borongh under the Public Health Act, 1875), be paid such reasonable remuneration, *not being less than two guineas for every day in which they are employed in such audit*, as such authority (*i.e.*, the Council) from time to time appoint." Clearly, then, the Council cannot require the auditors to take a sum less than two guineas a day each for their services in respect of the audit of the accounts of sanitary receipts and expenditure. The borough anditors are not, however, entitled to demand remuneration for their services in auditing the accounts of the borough in respect of receipts and expenditure other than under the Public Health Act. The decision of the Court of Appeal in the leading case of "Thomas v. Devonport Corporation" (63 J.P. 740 C.A.), referred to by our correspondent, emphasised this provision; and the Court there held also that the duties of the auditors in auditing the accounts of the council as an urban sanitary authority are not confined to a mere examination of vouchers in respect of items for which the council claims credit, but that they must make a reasonable examination to see that the payments made are legal and proper. There was some discussion in this case as to what was a reasonable amonnt of time to spend on the audit, and the court held that an auditor was only entitled to remuneration for such time or number of days as a business man would reasonably take to andit such accounts. Where the borough is not very large and the accounts are not heavy, we do not think that more than a few days would be regarded as a reasonable time to spend on the audit of the accounts under the Public Health Act, 1875.

The borough auditors seem to have a wide commission under Sec. 246 of the Public Health Act, 1875, to andit the accounts of the borough as a sanitary authority, but in respect of the accounts of the borough as a municipal corporation they are only authorised to audit the treasurer's accounts. Sec. 27 (1) of the Municipal Corporations Act, 1882, provides that, "the treasurer shall within one month from the date to which he is required to make up his accounts in each half year, submit them, with the necessary vouchers and papers, to the borough auditors, and they shall audit them." It seems to us that the auditor's jurisdiction will not extend to the audit of the separate accounts of the undertakings of the council carried out under local Acts. In respect of these, his functions will, apparently, be confined to auditing the receipts and payments passed throngh the treasurer's account.

We may add that the receipts and expenditure of borough councils under the Edncation Act, 1902, are now subject to audit by the district auditor appointed by the Local Government Board.

622.—**PRIVATE STREET WORKS ACT—Liability of Corporation to Take Over Private Streets.**—We have received the followiug communication from a correspondeut iu reference to Query No. 614 in our issue of last Friday. This query related to the liability of the corporation to take over private streets under the Private Street Works Act, 1892. As the facts coincide with a case which has occurred in this borough, I have no doubt that that is the one in poiut:—"I should be glad if you would kindly refer to the question again, and the concluding part of your reply, as it does not appear quite clear. The question being: Is the council bound to take over a street in a certain event, when the work is carried out under the supervision of its surveyor? And your reply to that is: That once the street is made up 'in accordance with the advertised plans and specifications' the council can be compelled to take it over. Does not this beg the question? But I submit that in this case the street has not been made up in accordance with the advertised plans and specifications, as the justices, having struck out that portion relating to tar paving, accordingly no tar paving works have been executed, and Sec. 20 of the Act provides that the local authority shall only be bound to take over the street when *all* the works specified in the Act have been executed, although by Sec. 19 it is permissible for them to do so if they are of opinion that the street ought to become a highway. I do not think the fact of the magistrates having amended the specification as to tar paving alters the effect of Sec. 20, and therefore the council will not be bound to take over the street until all the works are carried out. Perhaps you would kindly reconsider the matter, and let me have your further opinion on the subject."

We are pleased to receive from our correspondent this further commnnication respecting query No. 614, elucidating as it does the point there raised, but we regret that we are unable to agree with the conclusion indicated therein. Sec. 20 of the Private Street Works Act, 1892, provides, that, "if any street is now or shall hereafter be sewered, levelled, paved, metalled, flagged, channelled, and made good (all such works being done to the satisfaction of the urban authority), then, on the application in writing of the greater part in value of the owners of the houses and land in snch street, the nrban anthority shall, within three months from the time of such application, by notice pnt up in snch street, declare the same to be a highway repairable by the inhabitants at large, and thereupon such street shall become a highway repairable by the inhabitants at large." We do not know of any decision of the courts on the exact point now raised, and therefore must base our opinion entirely on the text of the Act. The section reqnires the local authority to take over a private street when it has been made up to the satisfaction of such anthority, on application of the greater part in value of the owners of the houses and land in the street. Presumably this application has been made. Construing the section with the Act as a whole, it seems to us that the council wonld not be justified in requiring the street to be made up for the purposes of this enactment in a manner which would entail unusual and heavy expense on the owners, when the street could be properly and efficiently made up in a less expensive manner. In other words, the requirements of the local authority must be reasonable, and the cost must not be excessive. The power to decide any question arising on these gronnds seems to be entrusted by the Act to a Conrt of summary jurisdiction. Under Sec. 7 of the Act, amongst other objections which may be raised to the requirements of the urban authority as to making up a private street, is the objection "that the proposed works are . . . unreasonable, or that the estimated expenses are excessive." This provision enables the parties to decide as to what works may properly be required by the local anthority, and it seems to us that when the street in question had been sewered, levelled, paved, and otherwise made good, in accordance with the plans and specifications of the conncil, bnt subject to the modifications in such plans and specifications imposed by the justices under the power conferred on them by Secs. 7 and 8 of the Act, and those works, in accordance with the plans, &c., *as modified*, are done to the satisfaction of the council, then the council will be legally bound, on receiving an application from the greater part in value of the owners of the houses and lands in the street, to declare the same a public highway.

623.—**EXAMINATIONS FOR SANITARY INSPECTORSHIPS.**—Can a person whose age is over thirty sit at any of the examinations for a sanitary inspector? Is there an age limit? and what is the fee?—"CLARIONETTE."

Yes; persons over thirty years of age can sit at any or all of the examinations of the Royal Sanitary Institnte. That body conducts examinations for inspectors of nuisances under the Public Health Acts, and for inspectors of meat and other foods, and also in practical sanitary science, and in hygiene for school teachers. The idea of these examinations is to select and grant certificates of qnalifications to persons suitable for certain public appointments, with a view to facilitatin

the choice of proper officers by local authorities, for the purpose of the carrying out of certain provisions of the Public Health and other Acts. Hence no upward age limit is fixed. In some cases, however, as in the case of examinations for inspectors of meat, and of nuisances, the Institute requires examinees to be at least 21 years of age before a certificate can be granted. The fee in the case of either of these examinations is £3 3s. For any further information and details our correspondent should apply to the Registrar of the Institute, Parkes Museum, Margaret Street, London, W.

624.—**LIGHTING AND WATCHING ACT—Attempt to Influence Voters against the Adoption of the Act.**—We have had an unsuccessful parish meeting and poll for the adoption of the Lighting and Watching Act, 1833. Would any landlord or his agent who visited his tenants and threatened them with an increase of rent over and above the amount of the lighting rent, if the Act were adopted, be liable under the Corrupt Practices Act or any later Act, such as the Municipal Act, 1884?—"CONSTANT READER."

It seems to us that the conduct of the landlord or his agent complained of in this case, being an attempt to interfere with the statutory right of a parochial elector to exercise his discretion in voting for or against the proposal to adopt the Lighting and Watching Act for the parish, would be regarded as a common law misdemeanour, and therefore indictable as such.

625.—**CONTRACTING—Rural District Councillor and Guardian not Disqualified because of Interest in Contract with Parish Council.**—Can a rural district councillor and guardian contract for work given out by the local parish council, of which he is not a member?—"CONSTANT READER."

A rural district councillor and guardian, who is not a parish councillor, is not disqualified for sitting and acting as a councillor or guardian by reason of being interested pecuniarily in a contract with the parish council. It would be different if he were also a parish councillor. He would then be expressly disqualified by such interest in pursuance of the provisions of Sec. 46 (1) (e) of the Local Government Act, 1894.

ACTON COTTAGE HOSPITAL.

WE are requested to state that the Acton Cottage Hospital, incidentally referred to in an illustrated article on the new Isolation Hospital recently opened in the Urban District, is not owned by the Council. It was given and enlarged by Mr. Passmore Edwards and Lord and Mr. Leopold de Rothschild. With the exception of a very few enteric cases, received in the private wards, which are harmless enough, no infectious case of any kind has ever been admitted to the Cottage Hospital. It will remain open as heretofore, not for accidents only, but for the treatment and relief of the sick poor in Acton, both as in-patients and as out-patients, and both for sickness and accident, and for the provision of district nurses, and special dinners for invalids who are not in a position to provide them. The population of Acton is 52,358, and not, as stated, 37,000.

COUNCILLORS AND CONGRESSES.

EXPENSES DISALLOWED.

THE Local Government Board auditor has disallowed expenses incurred by the Tottenham District Council in sending deputations to the Sanitary Congress and the Congress of the Institute of Public Health.

Another item in respect of a commemorative marble tablet, bearing the names of the councillors and officers, placed in a new fire brigade station, was also disallowed, the auditor pointing out that it could not be regarded as furniture.

UNIFICATION OF RATES.

The Need for Re-arrangement of London's Rates. What the Ratepayers of the Poorer Metropolitan Boroughs would Stand to Gain. An Average Rate Throughout London, Based on the Rates for 1903-4, would be 7 1·5d. in the Pound. Centralisation of Administration.

(By Mr. A. GRIFFITHS, Borough Accountant, Camberwell.)

THE complex question of levying a uniform rate throughout London is again occupying the attention of statesmen and others interested in local government. Much relief is already afforded the poorer boroughs of the Metropolis, under the provisions of the Metropolitan Poor Act, 1867, and Amending Acts (under which the Metropolitan Common Poor Fund was established) and the London (Equalisation of Rates) Act, 1894. London also benefits by a sum exceeding £1,236,900 per annum, which represents a rate of about 7½d. in the £, payable out of the local taxation account by the Imperial Government.

Metropolitan Common Poor Fund.

The operations of the Metropolitan Common Poor Fund relieved the poorer unions of the Metropolis during the year ended Lady Day, 1903, of an expenditure of £368,772. The fund is administered by the Local Government Board, certain specified items of the poor rate expenditure being distributed equally over the whole metropolitan area on the basis of rateable value. The items of expenditure so chargeable include the maintenance of in-door paupers, pauper children, insane poor, expenses of the Houseless Poor Acts (Vagrants), medical relief, officers' salaries, registration fees, vaccination fees, maintenance of small-pox, fever, and diphtheria patients, and ambulance expenses. Since the fund was established the aggregate sum actually paid to unions which had been recipients out of the fund up to Lady Day, 1903, amounted to £7,747,898.

The London (Equalisation of Rates) Act, 1894.

The equalisation fund provided under the above Act is created by calculating a rate of sixpence in the £ from each parish on its assessable value, and re-distributing the same amongst the several sanitary districts in proportion to their population, for the purposes of defraying their expenses under the Public Health (London) Act, 1891, and in respect of lighting and street expenses. During the present financial year Camberwell has received the sum of £26,177 9s. 2d. out of the above fund.

I have extended a table prepared by the Statistical Department of the London County Council, by adding a column showing what the nett rate would be in each parish if such enactments were not operative. It will be seen, on reference, that the City of London would enjoy a rate of 5s. 2·76d., whilst St. George-in-the-East would require to levy a rate of 13s. 2·27d.

Should any scheme be formulated and passed into law to unify the rates throughout London, the enactments providing the Metropolitan Common Poor Fund and the equalisation fund previously quoted would no doubt be repealed or amended. The comparative statement of rates levied by the City of London and the metropolitan borough councils shows that an average rate throughout London, based on the rates levied for the year 1903-4, would be 7s. 1·5d. in the £. The rate in Camberwell for the same year was 8s. 1d.

It would appear that with a uniform rate throughout London, the control of expenditure of boroughs, districts, or parishes might mean the centralisation of administration, in the same way as the expenses of the guardians are at present controlled by the Local Government Board. Otherwise it will readily be seen that, with a uniform rate, authorities desiring that the district under their administration should be the best throughout the whole area, might incur expenditure which otherwise they could not afford. The question of the present indebtedness of the several parishes would also have to be taken into consideration, as probably each parish would have to provide for the redemption of its existing debt. Financial adjustments with the various boroughs owning electricity works, cemeteries, housing property, &c., would also have to be made. There seems little doubt, however, that whatever re-arrangements are made, the ratepayers of the poorer London boroughs would stand to gain under any scheme of unification.

There is no reason why the expenditure upon public libraries and museums, public baths and washhouses, and public parks and gardens should not at once become a central charge.

AVERAGE RATES RAISED IN THE CITY OF LONDON AND IN EACH METROPOLITAN BOROUGH FOR THE YEAR 1903-4.

	Assessable Value, April 6th, 1904.	Estimated Population, April 6th, 1904.	Average rate raised 1903-4
	£ s. d.		s. d.
City of London	5,019,371 0 0	25,757	6 3·5
City of Westminster	5,516,725 0 0	174,271	6 10·3
Battersea	1,021,110 10 0	169,770	7 9
Bermondsey	925,000 0 0	129,856	8 11·4
Bethnal Green	527,941 0 0	129,118	7 11
Camberwell	1,293,635 0 0	263,611	8 1
Chelsea	822,261 10 0	71,332	7 0
Deptford	608,854 0 0	111,060	7 2
Finsbury	980,428 7 6	102,025	6 8·9
Fulham	823,186 10 0	149,090	7 4
Greenwich	592,190 10 0	99,383	8 1·2
Hackney	1,185,665 0 0	220,773	7 2
Hammersmith	717,228 10 0	114,765	6 10
Hampstead	997,263 0 0	84,895	6 10
Holborn	951,281 0 0	56,612	7 5 1
Islington	1,930,025 0 0	336,932	7 0·5
Kensington	2,271,549 10 0	179,026	6 5
Lambeth	1,900,788 0 0	305,029	7 1
Lewisham	951,208 0 0	148,419	7 4·7
Paddington	1,473,027 0 0	150,367	6 7
Poplar	815,507 10 0	169,227	9 3
St. Marylebone	1,738,347 0 0	130,589	6 9
St. Pancras	1,800,014 0 0	233,099	7 0
Shoreditch	782,003 0 0	116,608	7 8
Southwark	1,258,824 0 0	202,144	7 0·2
Stepney	1,433,439 0 0	293,318	8 5·9
Stoke Newington	344,140 0 0	51,810	6 7·1
Wandsworth	1,710,327 10 0	275,009	7 4·4
Woolwich	686,718 0 0	132,070	7 9·4
	41,078,058 7 6	4,625,965	

Average for London, excluding the City ... ... 7s. 2·93d.
Average for the Administrative County of London (including City) 7s. 1·5d.

Official Advertisements.

BOROUGH OF SOUTHWARK.

CONTRACTS.

TENDERS are invited for the following CONTRACTS from the 1st day of April, 1905, to the 31st day of March, 1906 :—

1. Asphalte, Bitumen, Pitch, &c.
2. Ballast, Sand, &c.
3. Brooms and Brushes.
4. Coach Ironmongery.
5. Coals and Coke.
6. Disinfectants.
7. English Timber.
8. Foreign Timber.
9. Fodder (three months).
10. Granite (Broken).
11. Harness Materials.
12. Horse Hire.
13. Lime, Cement, and Bricks.
14. Linen Goods, &c.
15. Oils and Colours.
16. Packing Rope, &c.
17. Pitching and Paving.
18. Pipes.
19. Printing.
20. Sewer Ironwork.
21. Soaps and Soda.
22. Stationery.
23. Tools, Steel and Iron, &c.
24. Wheels, Tyres, &c.
25. Wood Blocks (Jarrah).

According to specifications, to be seen at the Town Hall, Walworth Road, S.E., any day between the hours of 10 a.m. and 4 p.m.

Tenders, duly signed, must be sent under cover, and endorsed "Tender for ——," and addressed to the Town Clerk, not later than 12 noon on Wednesday, February 15th, 1905.

The Council do not bind themselves to accept the lowest or any tender.

J. A. JOHNSON,
Town Clerk.

Town Hall,
Walworth Road, S.E.
27th January, 1905.

METROPOLITAN BOROUGH OF FINSBURY

CONTRACTS FOR SUPPLIES.

THE Finsbury Borough Council invite TENDERS for the SUPPLY of the undermentioned WORKS and ARTICLES :—

(1) FOR TWELVE MONTHS, FROM 31ST MARCH NEXT.

(a) Ballast, Sand, &c.
Brushes
Chandlery
Clothing, Boots, &c.
Disinfectants
Gasfitters' Materials
Lime and Cement
Paving Materials and Broken Granite
Sewer Ironwork
Smiths' Work
Stoneware Goods
Timber

(b) General Stores
Machine Broom Refills
Scavengers' Brooms

(2) FOR SIX MONTHS, FROM 31ST MARCH NEXT.
Fodder.

Particulars of the articles, &c., required, and forms of tender, may be had any Saturday from 10 to 12, and on any other day from 10 to 4, on application at the Borough Surveyor's Department, at the Town Hall, Rosebury Avenue, E.C, in respect of the articles specified in Paragraph No. 1 (a), and at the Superintendent's Office, 26, Wharf Road, in respect of those in Paragraphs Nos. 1 (b) and 2.

Tenders, marked on the outside "Ballast," or as the case may require, must be delivered to me, at this Office, not later than noon on the 6th February prox.

Only those tenders made upon the official form, and properly filled up and signed, and confined to the articles specified therein, will be entertained.

GEORGE WHITEHEAD PRESTON,
Town Clerk.

Finsbury Town Hall,
Rosebury Avenue, E.C.
21st January, 1905.

AGENTS REQUIRED in unrepresented districts for the Imperial Accident, Live Stock, and General Insurance Co., Ltd. Estd. 1878. Departments : — Personal Accidents, Carriage and Drivers' Accidents. Horse and Cattle Insurance. Claims paid £300,000. Address Mr. B. S. Essex, Manager, 17, Pall Mall East, London, S.W.

CLEAR WATER. — To be SOLD cheap, Bell's Improved Water Filter. Capacity 18 000 gallons per hour. Perfect order and condition, and can be seen working. Jas. Smith and Sons, Calder Wharfe Dyeworks. Dewsbury.

Official Advertisements.

URBAN DISTRICT COUNCIL OF CHISWICK.

TO CONTRACTORS, MERCHANTS, AND OTHERS.

PERSONS desirous of TENDERING for the Execution of WORKS and SUPPLY of STORES (separately), as under :—

For One Year, commencing 1st April, 1905 :—

1. For hire of horses and drivers, with or without carts.
2. Oils, &c.
3. Ironmongery, &c.
4. Disinfectants.
5. Clay Cross (or Buxton) and Grey Lime.
6. Coal and Coke.
7. Aluminoferric.
8. Cement.
9. Kentish Pit Flints and Blue Guernsey Granite.
10. Stationery.
11. Printing.
12. Winding and Repairing Clock.
13. Forage.
14. Horsing of the Fire Brigade.
15. Pipes, Gullies, &c.

may obtain forms of tender on application to Mr. John Barclay, Surveyor of the Council, at the Town Hall, Chiswick, where specimens of the goods and forms of contract and bond may be inspected after the 21st instant, between the hours of 9 and 10 a.m., or at any other time by appointment.

Tenders to be made on the prescribed forms, and delivered in sealed envelopes to the undersigned, not later than 5 p.m. on Thursday, the 9th day of February, 1905.

By order.

ERNEST F. COLLINS,
Clerk of the Council.

Town Hall, Chiswick, W.
18th January, 1905.

THE ROYAL SANITARY INSTITUTE.

LECTURES AND DEMONSTRATIONS TO SANITARY OFFICERS, MEAT INSPECTORS, AND OTHERS.

THE Thirty-ninth Course of LECTURES will be held at the PARKES MUSEUM, Margaret Street, W., commencing MONDAY, FEBRUARY 13th.

The course includes, in addition to the Lectures, a number of practical demonstrations and inspections at places illustrative of sanitary practice and administration.

Full particulars can be obtained at the Offices of the Royal Sanitary Institute, Margaret Street, London, W.

TEMPERANCE PERMANENT
BUILDING SOCIETY,
4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS

For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years.
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager.

BIRKBECK BANK
ESTABLISHED 1851.

2½ per cent. INTEREST
allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST
allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.
STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary,
Southampton Buildings, High Holborn, W.C.

TO TOWN CLERKS,
SURVEYORS,
ENGINEERS,
AND OTHER
MUNICIPAL OFFICIALS.

We are constantly receiving evidence of the value of THE

MUNICIPAL JOURNAL

OFFICIAL ADVERTISEMENTS

APPOINTMENTS,

TENDERS, &c.

The Sale of the Journal is

INCREASING Week by Week

Throughout the Country, especially amongst

COUNCILLORS, OFFICIALS,

PUBLIC SERVANTS GENERALLY,

and CONTRACTORS.

Office, 12, SALISBURY SQUARE E.C.

JUST PUBLISHED.

Demy 8vo. Cloth. 10s. 6d. net.

URBAN POLICE

AND

SANITARY

LEGISLATION,

1904.

BY

F. N. KEEN

(Parliamentary Barrister),

Author of "Markets, Fairs, and Slaughter-houses," &c.

This book comprises a Collection of Provisions contained in the Local Improvement Acts obtained by English Urban District Councils in the year 1904, after Consideration by the Police and Sanitary Committee of the House of Commons.

P. S. KING & SON,

ORCHARD HOUSE, WESTMINSTER.

EATON & KNAPP,

BOILER SETTERS & FURNACE BUILDERS,

Repairs in Boiler Brickwork & Dust Destructors of all kinds.

ESTIMATES FREE.

23, CLACTON ROAD, WALTHAMSTOW.

The Cream of Cocoas.

EPPS'S

Contains all the nutriment

COCOA

of the Choicest Nibs.

MUNICIPAL JOURNAL

FRIDAY, FEBRUARY 3, 1905.

NOTES AND COMMENTS.

Paris and the Gas Supply.

THE Paris Municipal Council has decided to municipalise its gas supply at the expiration of the concession of the Paris Gas Light and Coke Company, which expires on the last day of this year. The proposal to convert the supply into a municipal service has passed the Chamber of Deputies, and a law authorising the city to borrow 120,000,000 francs for that purpose has been voted. The Senatorial Committee on the Bill, however, whilst admitting the principle of municipalisation, is opposed to the direct working by the city itself. The report of the committee says:—

> We are of opinion that the city should not be authorised to adopt the "Regie Directe" or direct management of the gas-works by the municipal authority scheme. Such a system, if adopted, must, in the case of certain administrations, become an instrument of political influence and electoral corruption, and this growing spirit of officialdom in everything will, if allowed to develop unchecked, kill what remains in us of civic strength and independence. Waste seems to be inherent to all undertakings which are directly managed by publicly elected bodies. This waste is almost invariably the consequence of neglectful management and irresponsibility, and this always results both in the public being indifferently served and in an increase of the cost of working.

The committee was evidently reporting at random when it made these remarks. It could not have studied the Board of Trade returns relating to undertakings in this country, which prove, not only that municipal gas is cheaper than company gas, but that the management is more efficient and economical. No complaints have yet been made that municipal gas enterprise in this country has become an "instrument of political influence and electoral corruption"; on the other hand, we find that this danger is much greater when the undertakings are in the hands of private companies. The other accusation—that of waste—is completely disproved by the official figures to which we have referred. The Paris Municipal Council estimates that by directly managing its own gas works it would turn over an annual nett profit of £720,000. The Senatorial report on the Bill denies this, and asserts that, as a consequence of the recent vote in the Chamber, and of the calculations of the chief gas engineer, the city could not expect to derive a larger profit than £424,000 per annum. The report goes on to say that the sum of 120,000,000 francs would be insufficient to carry out the city scheme, which comprises an all-round reduction in the price of gas to the consumer. It is therefore proposed that the city shall be allowed to borrow a sum of 100,000,000 francs only, so as to enable it to acquire the company's gas works and material, and that, having once acquired the works, it shall be for the city to decide whether it is best to farm out the supply for a number of years, or whether it shall come to an arrangement with the existing company whereby the latter should lease the municipal works on a concession which should comprise a decrease in the price of gas and remunerative payments to the city. The question that will at once strike those familiar with the unqualified success of municipal gas enterprise in this country is: why should not all these benefits be directly conferred by the municipality, which would thereby save the profits that would have to be got out of the transaction by the company?

Municipal Creches.

A CORRESPONDENT of an evening contemporary, who evidently thinks that a needed reform has only to be asked for, and it is conceded, writes as follows:—

> Why does not one of the borough councils take the "bull by the horns" and establish a municipal crêche, instead of wasting many words in expatiating on the benefits of such a step?
>
> Surely it is obvious that municipal crêches would make the domestic cares of poor, hard-working mothers much lighter, and would, doubtless, check the great infantile mortality in the metropolis.
>
> The L.C.C. has expressed itself in favour of the movement, so why are the borough councils lackadaisical?

The answer is a very simple one. The borough councils have not powers to establish municipal crêches, and when the Acton District Council applied for powers it was met by the Local Government Board with the cry of "No precedent," and its application was defeated. There is a precedent, however, at Glasgow, but it is not sufficiently on "all fours" to satisfy this particular Government Department. What is needed is legislation empowering local authorities generally to establish these institutions, if they so desire. It might take the form of an Adoptive Act, and there would then be no excuse for inactivity. As we pointed out last week, the Urban District Councils Association is pressing the subject upon the attention of the Government, and we hope that other associations will do likewise.

Works Departments.

MUNICIPAL Works Departments, and especially that existing under the London County Council, have not now the bad name that formerly attached to these concerns. Under the new management the L.C.C. institution is doing famously, and its success has impressed the most pronounced of its former opponents among the members of the Moderate party. The opponents of the Works Department at West Ham, too, have just received more than they bargained for in a report that has been prepared showing the results of the working of the Department since its commencement in 1901. The official figures constitute a complete vindication of the Department, and show that during the three years of its existence, so far from being a burden upon the rates, it has been the means of a saving of £3,332 17s. 6d. The figures may be summarised as follows:—

Architect's valuation of work completed.	Actual cost.	Difference of cost.	
		Below final valuation.	Above final valuation.
£167,530 2 8	£164,197 5 2	£5,392 15 10	£2,059 18 4
164,197 5 2		2,059 18 4	
£3,332 17 6		£3,332 17 6	

During the same period jobbing works, &c., have been executed to the extent of £113,771 17s. 8d., and upon this also a considerable saving must have been effected.

Tramways versus Railways.

IT is the fashion nowadays for railway directors to make complaints about the competition of tramways with railways; and this week we have had quite an avalanche of these lamentations. Curiously enough, it is not the tramways, as such, that are objected to; but the fact that local authorities own these tramways. How public ownership makes the position worse we are not quite able to see, for whether municipal authorities or private companies run tramways, the result is the same—a decline in the railway receipts and a consequent reduction in dividends. As business men, railway directors ought to prefer municipal tramways to company concerns, because in a great many cases the former produce profits which result in the reduction of rates. This so far from being a cause of complaint should be a source of satisfaction to the railways, which are constantly grumbling, like all persons in a similar position, at the large amount of rates they have to pay. Lord Claud Hamilton, the chairman of the Great Eastern Railway Company, who adds to his other activities that of membership of the Industrial Freedom League—an organisation originally formed, by-the-bye, for the purpose of pushing the interests of a tramway Trust—introduced

a transparent fallacy into the speech on this subject which he made on Tuesday. He said—

> As sensible men, we can find no fault with such tramways when they are promoted by public companies, but what we do complain of is the competition of municipal tramways, supported by the rates, to which the company is the chief contributor as a ratepayer.

Lord Claud Hamilton has evidently not studied with that care and attention he bestows upon his own railway figures the latest statistics concerning municipally-owned tramways. If he had, he would have found that in the majority of cases these tramways, so far from being supported by the rates, themselves reduce the rates.

How Tramways Reduce Rates.

LET us pursue this question a little more closely. Take first of all London, which we suppose is the principal criminal, though how the activities of the County Council unduly affect the traffic receipts of the Great Eastern is not quite clear. London during the six years ended March 1902 3, paid over to the rates from tramway profits £293,592. In addition to that, the Council reduced the debt to the extent of £246,591, exclusive of interest. Out of the proceeds from the sale of various property, such as horses, rolling stock, &c, it handed over £93,376 more towards debt reduction. Last year, owing to reconstruction and the consequent disorganisation of the system on the south side, the Council paid over nothing towards the reduction of rates, but it carried forward a credit balance to this year's account of £18,656. The Council has on the south side a renewals fund of £30,772. The concession of halfpenny fares means a clear gift of £100,000 a year to the passengers, and the additional labour advantages represent another £30,000 annually. It is evident that Lord Claud's argument does not apply to London. Now, at West Ham, where the Great Eastern Company is the largest ratepayer, the rates are already reduced this year by 1¾d. in the £ from tramway profits. So that the company is actually receiving an enormous financial benefit from that very competition against which its chairman complains. Had this enterprise been in the hands of the British Electric Traction Company, which founded the League Lord Claud Hamilton takes so much interest in, the £8,000 represented by the 1¾d. rate relief would have gone into the pockets of the B.E.T. Co. directors and shareholders, and the railway company would have received no benefit whatever. At East Ham the tramway profits in 1901-2 were £985; in 1902 3, £1,788; and in 1903-4, £1,948. Another municipal tramway operating in the Great Eastern sphere of influence is that at Lowestoft. It has only been open since July, 1903, and yet the accounts for the first 14 months show a gross profit of nearly £5,000; and, after all charges were met, there was a substantial balance to carry forward. No rate-aided tramways here, at any rate! The Yarmouth municipal tramways showed a deficit last year of £215, but as there was a profit of £534 the previous year there is not much to complain of. In each of these cases the profit is the nett profit, arrived at after the payment of capital charges—payments which the railway companies never have to make before distributing their dividends. Instead of indulging in fulminations against local authorities, railway directors should recognise the position. The tramways and other methods of street traction are going to monopolise the local traffic, and the railways will have to concentrate their attention upon the long-distance traffic. The man in the street is not going to hurry to a station and be bound by a time-table when his tramcar passes him every few minutes and conveys him cheaply and expeditiously to his destination. Railway companies should accept modern developments and prepare for them. There is plenty of room and opportunity for improved transit facilities yet.

League Gymnastics.

THE mental gymnastics of the writers of the Liberty and Property Defence League do not appear to have favourably impressed our readers. "It is surely simple common sense," writes a correspondent from Barrow-in-Furness, "that if you tap new sources of income, and make profits, you can relieve rates or provide other public benefits." The fact is apparently too obvious for the Liberty and Property Defence League. Another correspondent, writing from St. Helens, tests the question in an even more simple manner:—

> To the "man in the street," the fact that the rates of Liverpool are 7s. 4½d., and that 1s. in the £ has been provided out of the profits on the trading departments (trams, &c.), it will appear that but for the profits he would have had to pay 8s. 4½d. in the £, or that some of the benefits of policing (and this for the protection more especially of the life and property of the direct ratepayer), of sewering, of lighting the streets, providing baths, parks, reading rooms, and art galleries, &c., would have had to be dispensed with.

Our correspondent then very pertinently proceeds to ask whether the Liberty and Property Defence League advocates the abolition of any or of all of these things. "If so, the rates could be kept down, but he will never keep down the rates by abolishing municipal trading. The profits from trading help to pay for the unremunerative departments, besides the fact that the lot of the tram employees has improved very much under the Corporation. Give us plenty of municipal trading, and there need be no rates at all." Evidently Mr. McDougall's curious point of view is not generally appreciated. Still less is it shared, as, so far as we have been able to discover, not even the Industrial Freedom League is sympathetic.

Shall Companies Vote?

WE are glad that the London local authorities are declining to support the retrogressive action of the borough Council of Holborn in regard to companies and the right to vote. The Holborn authority, as our readers remember, wants to give companies votes in proportion to their rateable value—a proposal which we have shown would produce all kinds of undesirable complications in our local government system. The Battersea and Camberwell Councils have emphatically pronounced against the idea, and the Bethnal Green Law and General Purposes Committee similarly expresses itself in these terms—

> That the Council strongly dissent from the proposal of the Holborn Borough Council relative to the voting powers and rating of limited liability companies, &c., and express the opinion that there is no need to legislate for the object suggested by the Holborn Borough Council.

We hope the other borough councils will be equally decided on the question, as we understand that upon their attitude certain Parliamentary action may depend.

Official Advertisements.

METROPOLITAN BOROUGH OF STEPNEY.

CONTRACTS.

THE Council of the Metropolitan Borough of Stepney hereby invite TENDERS for CONTRACTS for One Year, from 31st March, 1905, as follows, namely:—

1. Supply and delivery of Brooms, Brushes, &c.
2. Supply and delivery of Tools, Implements, &c.
3. Sharpening of Tools.
4. Shoeing and Roughing of Council's Horses.
5. Supply and delivery of Cast Iron Work
6. Supply and delivery of Portland Cement.
7. Supply and delivery of Bricks, Lime, and Fire-Clay.
8. Supply of and Repairs to Harness.
9. Supply and delivery of Drainage Materials.
10. Supply and delivery of Timber.
11. Supply and delivery of Colours, Varnishes, Oils, and Sundries.
12. Supply and delivery of Oilman's Goods.
13. Supply and delivery of Wheelwright's and other Materials for Repairs to Carts, Vans, &c.
14. Squaring and Redressing old Paving Materials.
15. Supply and delivery of Disinfectants.
16. Removal of Dead Bodies to Mortuary.
17. Supply and delivery of Uniform Clothing.

Also Tenders for Contracts for the period from 31st March, 1905, to 31st March, 1908, as follows, namely:—

18. Hire of Horses, Driver and Carts, and Cartage of Rubbish, &c.
19. Supply and Delivery of Ballast, Sand, Shingle, &c.
20. Supply and Delivery of Paving Materials.

Also tenders for contracts for the period from 25th March, 1905, to 29th September, 1905, as follows, namely:—

21. Supply and delivery of Steam Coal.
22. Supply and delivery of House Coal.
23. Supply and delivery of Coke.

Persons tendering must submit the names and addresses of two substantial persons willing to be jointly and severally bound with them for the due and proper performance of their several contracts.

Contractors will be required at all times during the existence of their contracts to pay the trade union rates of wages as agreed to by the employers' association and trade unions, and as in practice obtain.

Contractors will also be prohibited from assigning or underletting their contracts without the written consent of the Council previously obtained.

Forms of tender, specifications, stipulations, and other conditions for items Nos. 1 to 14 inclusive, and items Nos. 18, 19, and 20, may be obtained on application to the Borough Engineer (Mr. M. W. Jameson), and forms of tender and specifications for items Nos. 15, 16, 17, 21, 22, and 23, upon application to the undersigned, at the temporary Municipal Offices, 15, Great Alie Street, Whitechapel, E., between the hours of 10 and 12 a.m., upon deposit of a £5 Bank of England note.

The deposit of £5 will be repaid upon receipt of a bona-fide tender, and return of the documents issued.

Tenders must be endorsed with a short description of the articles tendered for, and sent to the undersigned on or before noon on Saturday, 11th February, 1905.

The Council do not bind themselves to accept the lowest or any tender, and will not accept the tender of any person or firm who shall on any previous occasion have withdrawn a tender after the same has been opened, unless the reasons for the withdrawal were at the time satisfactory to the Council.

By order.

GEO. W. CLARKE,
Town Clerk.

Municipal Offices (Temporary),
15, Great Alie Street,
Whitechapel, E.
25th January, 1905.

SURVEYOR (Retired, Government of India), seeks Employment as Draughtsman. Experienced in levelling and land surveying. Moderate salary. G. C., 19, Hyde Vale, Greenwich, S.E.

SHOEMAKER, or other capacity. Good testimonials. Experienced. State wages. Apply G. C. A., MUNICIPAL JOURNAL Office, 12, Salisbury Square, E.C.

WANTED, Appointment as Assistant Storekeeper, &c. Age 20. A., Shere, Guildford.

POOR LAW OUTLOOK.

Charges of Lax Administration have from Time to Time been made Against St. George's Union, Hanover Square. Special Inquiry and a Reply. Various Schemes for Emigrating Poor Law Children. Work Yet to be Done at Home.

Charge of Lax Administration.

FOR the last year or two the writer of the *Times* annual Poor Law feature—"The Legal Poor of London"—has passed very strong censure on the "lax administration" of relief by the guardians of St. George's, Hanover Square. Says the writer:—

> The guardians of the union, judging by their inaction, do not appear to regard the question as one of very great importance, which is rather surprising when there are serving on the board men experienced in Poor Law work like Mr. J. G. Talbot, M.P.

And one of the inspectors of the L.G.B. (Mr. H. Lockwood), in his statement, contained in his report for 1903-4, made some very striking comparisons in the administration of relief in St. George's and in Bethnal Green, each with a population of 129,000, and with "facts contributory to pauperism and distress" not dissimilar. But the total number of paupers, according to returns, is in the former union 4,042, and in the latter 2,990.

❦ ❦ ❦

Strong Remarks by Inspector.

THE L.G.B. Inspector holds that the pauperism of a given union is usually in no small degree a question of administration, and he went so far as to say in this particular case:

> It is difficult to avoid the conclusion that the extra 1,100 paupers in the rich union of St. George's in excess of those in the poor parish of Bethnal Green are the victims of lax administration rather than of actual poverty.

At last these attacks have met with response. At the last meeting of the Board a special committee appointed to consider the matter presented a report, stating that, "having fully discussed the question with Mr. Lockwood, we are of opinion that the charge cannot be sustained."

❦ ❦ ❦

Special Committee's Reply.

THE charge of lax administration related particularly to able-bodied paupers, and this special committee admits that at the present time there are about 600 inmates of the workhouse. This fact alone is highly significant, and an attempt is made to explain it away by showing that the guardians are in a difficulty, and that they will be unable to effect an improvement until they have got a workhouse with sufficient room for work to be performed, and a taskmaster who will make the men work. There was one striking suggestion in this report. The members of the special committee—

> Were of opinion that the best means of dealing with the question of indoor pauperism would be by an amalgamation of the three unions within the City of Westminster, whereby a scheme of classification could be put into force, and the workhouses belonging to the three unions utilised for the purpose.

But at the last meeting of the Board it was decided by 11 votes to 9 to omit this clause. As showing the remarkable views of Poor Law administration expressed in the lengthy discussion which followed the report, it was stated by one of the speakers (Mr. Everitt), who first drew attention to the matter, and at a former meeting criticised the articles in the *Times*, that "he thanked God there were still some people left who allowed sentiment and sympathy to actuate them." That is just the difficulty with many guardians. They regard sentiment and sympathy as before justice. If the heart runs away with the head the poor are, in the long run, bound to be the sufferers, because picturesque poverty and poverty with the "long tale" will get the benefit, while the more deserving cases of shrinking poverty will stand little chance of ever being known.

❦ ❦ ❦

The Farm Colony Movement.

A SITE of 1,300 acres at Hollesley Bay, near Woodbridge, Suffolk, has been secured by the Guildhall Central Unemployed Committee to provide work for the unemployed. The estate has been used as an agricultural college, and its buildings will accommodate over 1,000 unemployed.

❦ ❦ ❦

Treatment of the Children.

THERE has recently been a recrudescence of interest in the treatment of Poor Law children. It is beginning to be felt that the various methods adopted for their training—cottage homes, scattered homes, boarding out—though good, do not exhaust the possible methods of treatment. There are, for example, at the present time three distinct schemes of emigration being put forward. Beside that of Mr. Kinlock Cooke, put forward a fortnight ago, there is Mrs. Close's scheme and a movement by the Metropolitan Boards of Guardians. We have remarked more than once on the strange indisposition on the part of many guardians to let their children go from under their eyes.

❦ ❦ ❦

Mrs. Close's Scheme and the Mansion House Meeting.

THESE movements, therefore, are interesting and promising. The scheme proposed by Mrs. Close "for the benefit of pauper children and for the reduction of the rates" has aroused extraordinary differences of opinion. The outline of this scheme is known to our readers, and we think it one which should not be allowed to drop. Lord Crewe, Dr. Barnardo,

"RONUK" (SANITARY) POLISH FOR FLOORS.

Polishes, Preserves, and Purifies. *Prevents the Harbouring of Germs.*

Used in the principal Hospitals, also in the National Gallery, Tate Gallery, Hertford House, &c., &c.

Awarded Bronze Medal of the Royal Sanitary Institute.
Only Award ever granted to a Polish.

CONTRACT DEPARTMENT.

"Ronuk," Limited, make a Speciality of Polishing all kinds of Flooring. A Large Staff of Specially Trained Workmen is kept by the Company, and inquiries for Estimates for the first preparation or maintenance of any new or previously unpolished Floors will receive immediate attention.

CAUTION.—Customers should see that every package bears the Registered Trade Mark, as endeavours are made to substitute inferior articles on the ground that they are the same as "RONUK."

A Sample, with Full Particulars and Prices, will be sent Free to any Institution on application.

"RONUK," Ltd., Head Office and Factory, **Portslade, near Brighton.**

LONDON DEPÔT: 86, York Road, Lambeth, S.E. MANCHESTER DEPÔT: 285, Deansgate.

Mr. Albert Spicer, and others honestly think that the scheme is unworkable. His lordship—who, by-the-bye, did not seem to be present on Monday at this Mansion House meeting—thinks that the proposed Poor Law farm homes in Canada, though small, scattered, and undistinguishable from the ordinary Canadian farm houses, would carry the dreaded pauper taint.

❦ ❦ ❦

DR. BARNADO thinks it would be almost iniquitous to send children out at so early an age as three years and upwards. But this figure, we take it, was only mentioned tentatively. Mr. Albert Spicer thinks that if existing agencies could only be strengthened it would be better for the children and more economical than Mrs. Close's proposals. The undeniable fact, however, is that only two or three hundred Poor Law children are each year emigrated under existing agencies, and this number shows a tendency to fall away. Another important consideration is that at the present time only the strongest and healthiest children are sent abroad, while under Mrs. Close's scheme, which has received the sanction and promise of support by the Provincial Governments of New Brunswick and Nova Scotia, children in indifferent health could be sent to the bracing and healthy climate of the Dominion, and the guardians would have the option of taking back the best amongst them before they cease to be chargeable to the ratepayers. There was much difference of opinion at this meeting, but the Lord Mayor, who presided, declared that a motion in favour of the scheme was carried by a large majority. This ruling has since been questioned in some quarters.

Other Objections and a Reply.

❦ ❦ ❦

MEANWHILE something like two-thirds of the 42,000 Poor Law children in this country remain in our workhouses amongst the derelicts of humanity. We are glad to notice that the York Union is now making a move to get the children from that atmosphere. Eighteen months ago, in a special article on the outlook at York, by our Poor Law Commisssoner, this needed reform was strongly urged, as was the necessity for building a nnrses' home. Both matters, it is gratifying to notice, have now been attended to. At the last meeting of the Skipton Guardians it was unanimously decided to appoint a committee to formulate a scheme for taking the children out of the workhouse and putting them in cottage homes in the country. At the last meeting of the Salford Union the L.G.B. Inspector (Mr. H. Jenner Fust) complimented the guardians on the cottage homes which they had built for the children at Culcheth, near Warrington.

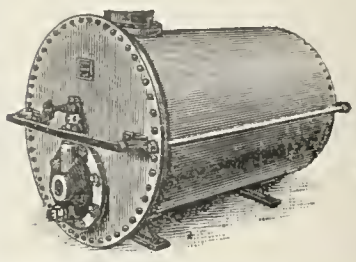
What of the Children in Workhouses?

HEATING OF BUILDINGS & HOT WATER SUPPLY

FROM LIVE OR EXHAUST STEAM.

The Latest and Best Appliance is

ROW'S PATENT CALORIFIER



Storage Calorifier for Baths.

Combined with AUTOMATIC STEAM CONTROL (Royles' Patent)

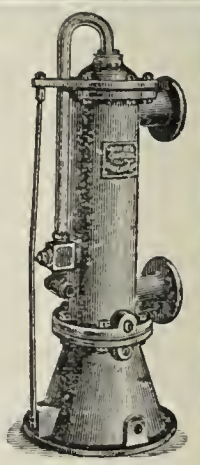
Adopted by the Metropolitan Asylums Board, London County Council, Manchester, Liverpool, Glasgow, Edinburgh Corporations, and others, for Bath Supply.

COPIOUS SUPPLY, UNIFORM TEMPERATURE.

ROYLES LIMITED, IRLAM, near Manchester.

ALSO MANUFACTURERS OF

Feed Water Heaters, Condensers, Evaporators, Steam and Gas Kettles, Syphonia Steam Traps, Reducing Valves, Oil Separators, Exhaust Heads, Boiler Mountings, &c., &c. Price and full particulars on application.



Vertical Calorifier for Hot Water Circulation.

DIALITE

THE STANDARD CABLE FOR ALL PURPOSES.

THE ST. HELENS CABLE CO., Ltd., WARRINGTON.

BIGGER AND BETTER THAN EVER.

The 1905 MUNICIPAL YEAR BOOK,

REVISED, ENLARGED, & IMPROVED,

WILL BE PUBLISHED

On TUESDAY, Feb. 14.

ORDERS NOW RECEIVED.

Price 3/6. By post 4/-

ELECTRICITY SUPPLY.

Conservation of Energy Looked at from a Financial Point of View. Words on Transformers. What may be Gained by their Use, and a Moral. The Position at Stafford and Bexhill as Shown by an Analysis of the Latest Reports. Rivalry Between Gas and Electricity.

TO those who disbelieve in the keenness of the competition between gas and electricity we would recommend a perusal of the Stafford accounts. During the past three years the quantity sold has gradually decreased, the maximum having been reached in 1902 with 245 803 units, and a figure of 180,145 units being the record for the last financial year. This is attribntable to sales by contract having dwindled until this item has disappeared. At the same time the lamp connections have grown, although slowly, so it may be that the contract sales represent some special class of business, of which no particulars are furnished in the accounts. The principal features of the accounts are:—

The revenue derived from sales of current, &c., amounted to	£2,879
And the working expenditure to	1,332
Leaving a gross profit of..	£1,547
Out of this sum the following requirements should have been met:—	
Interest on mortgage debt	£889
Instalments of principal repaid	963
Bonus to employees	15
Depreciation charged...	611
Total of capital and special charges..	£2,478
Less gross profit as above	1,547
Gross deficiency for year	£931

The figure given will be seized upon by critics, but it is unduly inflated by the charge for depreciation being made as an item of expenditure. In this respect it resembles the action of the Glasgow Corporation some year or two ago, when by reason of a similar charge being made the accounts were made to show a deficit instead of a surplus. In this instance the deficiency is nearly trebled by the treatment of the depreciation allowance.

❦ ❦ ❦

Stafford Details.

THE revenue, owing to the changes already referred to, was less than in the previous year by £218, and the capital charges greater by £57, but the expenditure was lower by £275, so that the loss, excluding the arbitrary item of depreciation, was reduced by £32. In face of a falling revenue, this result is one which is more satisfactory than might have been anticipated. The receipts were as follows:—

STAFFORD.	Units.	Yielding.	Per unit.
Private consumers took...	172,007	£2,694	= 3·759d.
Public lamps consumed...	8,138	182	= 5·367d.
Interim total ...	180,145	£2,876	= 3·832d.
Sundry receipts	—	3	= ·004d.
Revenue in all ...	180,145	£2,879	= 3·836d.
Units used on works ...	15,272	(The maximum load was 173 kilowatts.)	
Total accounted for ...	195,417		
Utilised on distribution.	36,194		
Total units generated	231,611		

The average received per unit has increased by ·642d., and the expenditure by ·138 l., while capital charges took ·567d. more, the difference of the first two items was ·504 l.; so the increase in the deficiency of ·063d. is easily explained. The sum received was taken up and allocated thus:—

	Amount.	Per unit.
Works cost	£1,002	= 1·335d.
Rates, taxes, and management	297	= ·396d.
Total cost	£1,299	= 1·731d.
Public lamp maintenance ...	48	= ·064d.
Gross cost	£1,347	= 1·795d.
Interest charges...	889	= 1·184d. } 2·467d.
Sinking fund and repayments	963	= 1·283d. }
Total actual cost of units sold	£3,199	= 4·262d.
Less nett deficiency for year...	320	= ·426d.
Revenue in all	£2,879	= 3·836d.

❦ ❦ ❦

Bexhill.

THE electricity supply department of the Borough of Bexhill has nearly completed its fifth year of working, and the accounts to March 31 last therefore cover the fourth year. Although the financial result was a deficiency of £731, the capital upon which interest and other charges had to be paid was partly unremunerative in consequence of a new boiler and superheater, a 300 kilowatt steam-generating set, and sundry other extensions having been carried out. An alteration to the switchboard was also paid for out of revenue. The policy of charging the lowest possible price has been consistently maintained, as it is considered that, although this may cause losses to be incurred for a time, it will undoubtedly encourage custom, with a steady growth in the business, and as all that is required to turn the deficiency into a surplus is an increase in output, the success of the undertaking is thereby ensured. The rate received is considerably less than at Eastbourne, Hastings, Folkestone, or Hove, the first two of which are municipal, and the latter two company, undertakings. The growth at Bexhill is sufficient indication of the success of the policy.

To Mar. 31st. Year ...	1901.	1902.	1903.	1904.
Units sold	107,700	231,734	293,404	358,635
Maximum load. ...	177 k.w.	223 k.w.	275 k.w.	326 k.w.
No. public arc lamps...	26	41	47	47
No. of public incandescent lamps ...	117	148	180	211

The revenue derived from sales of current amounted to	£6,500
And the working expenditure to	4,544
Leaving a gross profit of	£1,956
Out of this sum the following requirements should have been met:—	
Interest on mortgage debt	£1,430
Sinking fund and instalments repaid	1,257
Total capital charges	£2,687
Less gross profit as above	1,956
Deficiency for year	£731

❦ ❦ ❦

Revenue and Total Capital.

THE debit balance brought forward was £2,336, and as £975 was received from the rates, the amount carried forward was £2,092. The receipts were:—

BEXHILL.	Units.	Amount.	Per unit.
Private consumers took ...	235,537	£3,834	= 3·907d.
Public lamps consumed ...	123,098	2,254	= 4·394d.
Interim total	358,635	£6,088	= 4·074d.
Meter rentals	—	196	= ·131d.
Sundry receipts	—	216	= ·145d.
Revenue in all	358,635	£6,500	= 4·350d.
Units used on works... ...	12,835		
Total accounted for	371,470	(The maximum load was 326 kilowatts.	
Utilised on distribution ...	58,192		
Total units generated ...	429,662		

The amount received was taken up and appropriated thus:—

	Amount.	Per unit.
Works cost	£3,002	= 2·043d.
Rates, taxes, and management	1,014	= ·645d.
Total cost	£4,016	= 2·688d.
Public lamp maintenance ...	528	= ·353d.
Gross cost	£4,544	= 3·041d.
Interest charges	1,430	= ·957d. } 1·798d.
Sinking fund charges ...	1,257	= ·841d. }
Total actual cost of units sold	£7,231	= 4·839d.
Less deficiency for year ...	731	= ·489d.
Revenue in all ...	£6,500	= 4·350d.

The capital expenditure was covered by the following items:—

BEXHILL.	
Lands	£900
Buildings	7,808
Machinery	13,708
Accumulators	1,072
Mains and services	18,190
Meters	2,463
Electrical Instruments	68
Public lighting	2,187
Various	1,467
Total capital	£47,863

❦ ❦ ❦

Wasted Units.

IN these days of extremely economical generation, many details of station management are receiving attention which were passed by when decimal fractions of a penny could be ignored for a time. Take alternating supply for example. The magnetising losses are constant, and with a low load-factor represent a comparatively high percentage of the output. We do not overlook the products of inventive genius which have been tried only to be found wanting, but we do say that few instances can be cited to-day of transformers upon an alternating system being automatically connected and disconnected, to suit the varying conditions of the load. Some engineers who appreciate the importance of any losses which are continuous, and go on hour-by-hour, day-by-day, irrespective of the output, have made attempts to switch off such appliances as could be safely removed during the hours of lighter load. To leave this change to be done by hand is, however, to risk a great deal in districts subject to fog or variable demands due to one cause or another. At the same time, if no attempt be made to get rid of the units wasted in heating up the iron cores, the coal bill is allowed to take care of itself, and under such circumstances it will do so by showing a far higher average than will satisfy those who have to find the money to meet the expenditure. It is probable, therefore, that further attempts will be made to solve the problem of automatically controlling the number of transformers at work so as always to have those connected working at their best efficiency. Considering the extent to which self-governed mechanism is now employed, it is perhaps surprising that more has not been done in this direction already. The demand must, however, stimulate the supply, and as many engineers have by careful management inside their works brought the production of steam down to its lowest cost limit, and by careful selection of and attention to the steam utilising plant made it impossible to effect any large reductions in the coal bill by further improvements in the engine-house, the next thing will be to seek for and remove such sources of loss and degraded energy as exist on the distribution system.

❦ ❦ ❦

Old Transformers.

THE first thing that will be attempted is to displace old transformers by those of more modern make. The advances which have come about through greater scientific knowledge and the skill acquired by experience have led to the iron or stand-by magnetisation losses being cut down to a third of what was quite a fair average only a few years ago, and there are plenty of undertakings which could be made to pay if the transformers were modernised. Moreover, the change is not one which involves great expense; the older patterns of transformers, being liberally provided with copper in their windings, are worth intrinsically more than they were, owing to the condition of the metal market, and their scrap value being set against the cost of the change takes away many of its terrors. Another direction in which advantages may be reaped is the differentiation between such apparatus for power and for lighting. It is obvious that with a lighting load lasting only two or three hours out of the twenty-four, a transformer on a system where this predominates must be designed with a very small continuous (or iron) loss; but it then is lacking in the other valuable quality of a small copper (or maximum load) loss. If it is to be employed on a load which extends over the greater portion of the day and night, less attention need be paid to the iron losses, and more is given to the copper losses so as to minimise the latter. By combining the two types under the control of automatic appliances to interchange them at the proper time the advantages of each are derived, while their respective disadvantages are, if not eliminated, at least minimised. A small transformer with an inappreciable iron loss is provided for the load during such hours as it is small and non-productive, and a large one is exchanged for this when business is brisk and revenue-earning is the order (not of the "day," perhaps), but of the night. Amongst other gains, this large or small copper loss transformer "regulates" better, and the electrical pressure is, therefore, more uniform, giving the customer a better light and affording a more satisfactory supply. The moral of the tale is, let councillors never discourage an engineer who seeks to reduce the losses by modernising his transforming plant.

J.G. WHITE & COMPANY, LIMITED.

ELECTRICAL, MECHANICAL & CIVIL ENGINEERS

GENERAL CONTRACTORS

22A, COLLEGE HILL, CANNON ST. LONDON, E.C.

TELEGRAMS "WHITTERICK, LONDON." TELEPHONE 6044 & 6045 BANK

WM. GRIFFITHS & Co., Ltd.,

35 to 39, HAMILTON HOUSE, BISHOPSGATE STREET WITHOUT, LONDON, E.C.,

CONTRACTORS FOR CONSTRUCTION OF TRAMWAYS

AND MUNICIPAL WORK OF ALL DESCRIPTIONS.

QUARRY OWNERS AND STONE MERCHANTS.

LARGE STOCKS ON HAND OF

PITCHINGS, KERB, MACADAM, YORK STONE, JARRAH TIMBER, &C.

TELEGRAPHIC ADDRESS—"GRIFFITHS, STONE, LONDON." TELEPHONES—Nos. 2868 and 2869, LONDON WALL.

JERRARD'S (PATENT) AUTOMATIC RAIL CLEANERS

Ensure a Clean Rail, both Groove and Head, at All Times and in All Weathers.

NOW IN USE ON OVER 50 OF THE PRINCIPAL SYSTEMS IN UNITED KINGDOM.

RELIABLE. EFFICIENT. DURABLE.

HAVE STOOD ALL TESTS.

For Particulars as to Price, etc., Apply—

JERRARD'S AUTOMATIC TRACK CLEANERS, LTD., 598, Commercial Road East, London, E.

Or to the Sole Agents for United Kingdom—

BRITISH GRIFFIN CHILLED IRON AND STEEL CO., LTD., 139, Cannon Street, E.C.

TICKET PUNCHES.

As adopted by Corporations, Tramways, 'Buses, Steamboats, &c.

ENQUIRIES SOLICITED.

THE TICKET PUNCH & REGISTER CO., Ltd.,
46, Queen Victoria Street, London, E.C.

TRAMWAY TOPICS.

At Liverpool Halfpenny Fares Would "Seriously Jeopardise the Commercial Stability of the Undertaking." Proposed Convertion of the Municipal Tramways at Lincoln to Electric Traction. Deadlock to be Removed. Threatened Action Against Belfast Councillors who Possess Free Tramway Passes.

THE Birmingham Corporation is about to acquire another interest of the B.E.T. Co. in the city. It relates to the Trust's undertaking in the district of Balsall Heath, which became part of the city in 1891. The principal clause in the proposed agreement is:—"The Corporation to pay to the company £20,000 for (a) the lines of the Balsall Heath Tramway; (b) full satisfaction of their statutory liability in respect of the Balsall Heath system; (c) the concession stated in Clause 4." The purchase money is to be paid on Dec. 22, 1906, and the Corporation is to immediately lease the tramway to the company until that date, at a peppercorn rent. Clause 4, referred to in the first one, was as follows:—"Immediately on the execution of the agreement, the Corporation to be at liberty to enter upon the steam routes and horse routes in lease until December 31, 1906, for the reconstruction thereof, and to construct cross-over roads, increase or alter passing places, situation for loops, &c., and to make connections with junction to overhead equipments in accordance with a plan already signed by the managers." The committee recommends the approval of these terms, being satisfied that the cost to the Corporation would not be less if the leases were allowed to expire with no provision as to re-equipment, and that great public inconvenience will be avoided by ensuring an uninterrupted service when the transfer of control from the company to the Corporation takes effect in January, 1907.

❦ ❦ ❦

Spen Valley Light Railway.

THE formal notice of the British Electric Traction Company of its intended application to the Board of Trade for sanction to transfer the Spen Valley Light Railway to the new company, the Yorkshire (Woollen District) Electric Tramways, Limited, was this week submitted to the Heckmondwike District Council. It was reported that the notice has already been considered by the Law and Parliamentary Committee, which saw no reason for urging any objection at this stage.

❦ ❦ ❦

Liverpool and Halfpenny Fares.

THE general manager of the Liverpool Corporation system (Mr. C. R. Bellamy) has issued a report dealing with the question of halfpenny tram fares generally, and cheap fares for workmen before 8 a.m. The town clerk of Bootle wrote to the Tramway Committee some months ago suggesting halfpenny fares within that borough. The receipt of this letter led to an instruction to report upon the question as applicable to Liverpool as well as Bootle. Mr. Bellamy says that the advantages of the system of 1d. fares in vogue in Liverpool are that it is readily understood, is the least anomalous of all systems, and reduces the ticket issue and checking to a minimum. In Liverpool, with a penny stage averaging two and one-third miles, it had been shown to be commercially sonnd to carry passengers over the whole route lengths at that rate, and Mr. Bellamy says he is unable to accept the responsibility of advising the committee to further increase the facilities at present afforded to the long-distance passenger.

❦ ❦ ❦

Would Halfpenny Fares Pay?

DEALING with halfpenny fares, Mr. Bellamy refers to the experience of Glasgow and Sheffield, and the probable effect of the introduction of halfpenny fares in Liverpool. He says that, out of 91 per cent. of penny passengers, 30 per cent. rode less than a mile and 30 per cent. less than one and a half miles. Of the latter, it is fair to assume, says Mr. Bellamy, that with one-mile stages at least half the passengers in that group would take advantage of them by walking to the mile limit. It may, therefore, be reasonably calculated that under such stages 45 per cent. of the present penny passengers would pay halfpenny fares. On the present revenue, this would mean a reduction of £95,000 per annum.

❦ ❦ ❦

A Big Loss in Revenue.

TO provide for this loss of revenue at least 45,000,000 additional halfpenny passengers would be necessary, against the 9¼ millions which it is assumed would be obtained. There would, therefore, be a deficit of nearly 36,000,000 passengers, representing a loss in revenue of £75,000. To put the case most favourably for halfpenny fares, and assuming that in Liverpool the traffic figures would rise to those of Glasgow, there would be an increase of 23,000,000 passengers, which would leave a deficit of 22,000,000 passengers, representing a loss of revenue of £45,800, which would further be increased by about 20 per cent. in the operating charges due to the increased number of passengers, amounting to £68,000, and seeing that the service would also require to be increased by 20 per cent., involving the addition of 80 cars, there would be a further capital expenditure required of £44,000, which would increase the interest and sinking fund charge to the extent of £2,640.

❦ ❦ ❦

Against Halfpenny Fares.

HAVING regard to all considerations, Mr. Bellamy is strongly of opinion that the introduction of halfpenny fares would seriously jeopardise the commercial stability of the undertaking. The only change that could be usefully and safely recommended would be, he says, the institution of three-halfpenny fares, as it was probable a large number of passengers at present walk to or from the penny stage ending. Possibly a mile for an additional halfpenny added to the principal existing trunk stages would accommodate a large number of citizens, and add to the revenue.

❦ ❦ ❦

Workmen's Fares.

REPORTING on cheap fares for workmen before 8 a.m., Mr. Bellamy points out that the statutory fare for workmen was a halfpenny per mile, and that the average passenger charge in Liverpool is the lowest in the kingdom, ·42d. per mile, Glasgow coming second with ·45d., and Sheffield third with ·50d. These advantages "apply with greater force to Bootle." Mr. Bellamy suggests that the committee should refrain for a time from experimental concessions which it would be difficult to recall, and which might prove disastrous, "having regard to the threatened competition with electric tramways which has already commenced in some towns, apply the moderate available surplus to a reduction of the heavy capital obligations, which in Liverpool are more onerous by reason of the debt on the purchase of the horse system and the capital charges on the horse lines."

❦ ❦ ❦

Lincoln Deadlock.

THERE is reason to believe that the deadlock in connection with the conversion by the Corporation of Lincoln of the local tramways to the electric system has now been removed. The difficulty arose with the Board of Trade, because the special Act of Parliament obtained several years ago provided for the laying of a gauge of 3ft. 6in., and the Electricity Works Committee subsequently decided to adopt the universal gauge of 4ft. 8½in. It was feared that a new Act of Parliament would have to be obtained, necessitating great delay as well as further expense, but the Board of Trade has now intimated that the existing Act is sufficiently elastic to meet the case, provided that a space of 9ft. be kept between the outer rail and the edge of the kerb. This it appears, can be done throughout the contemplated route, excepting at one point, where it will be necessary to slightly reduce the width of the footway.

❦ ❦ ❦

Newcastle Managership.

AT a special meeting of the Tramways Committee of the Newcastle Corporation on Monday, the final selection of candidates for the local tramway managership was made. The following were selected:—

Mr. E. Hatton, Salford.
Mr. G. Connaty, Birmingham.
Mr. H. E. Yerbury, Sheffield.

It was decided that the chairman, vice-chairman, and Mr. Cail go to the places where the selected candidates are now engaged, and report.

❦ ❦ ❦

Croydon's Proposed Extension.

A POLL of the electors of Croydon was taken on Tuesday in reference to a clause in the Corporation Bill respecting a proposed extension of the tramway system to Upper Norwood and the provision of omnibuses, at a cost of about £150,000. The principal opponents were Sir William Treloar and other residents at Upper Norwood, and the Croydon Chamber of Commerce, the ground of objection being that the new lines would be unremunerative. There voted for the extension 3,523, and against 3,435.

❦ ❦ ❦

Tramcar Passes: A Threat.

THE Belfast City Council, at its last monthly meeting, voted its members free passes on the newly-acquired municipal tramcars. The town clerk (Sir Samuel Black) on Tuesday evening received a letter from a firm of Belfast solicitors intimating their intention, on behalf of certain ratepayers, to institute immediate legal proceedings in the Court of Chancery against all members who have accepted and used the passes. The solicitors further intimated that they will withhold the writs until the following day, to give the City Council an opportunity of rescinding what they describe as a most illegal resolution.

❦ ❦ ❦

Stealing Tramway Tickets.

TWO little boys, named Lawson and Steele, were charged at the Liverpool County Magistrates' Court, on Tuesday, with having on Sunday evening stolen 400 penny tram tickets, belonging to the Liverpool Corporation. The tickets were taken from the conductor's box, it was alleged, and were probably taken for the purpose of competing for a prize of £20 offered by a periodical for a collection of tram and 'bus tickets the numbers of which when added together made the highest total If the tickets had not been found the conductor would have had to pay their face value. The boys admitted the offence, and stated that they took the tickets for the purpose of getting the prize. They also admitted stealing a box containing 900 to 1,000 tickets earlier in the same evening at Bootle. They were discharged with a caution.

❦ ❦ ❦

Bootle Tramways Scheme.

DURING the past week a recommendation authorising an application for a Provisional Order to construct two tramway lines in Bootle has been put before the Corporation by the Parliamentary Committee. The proposed lines, when connected with the Aintree and Fazakerley line, will be worked by the Liverpool Corporation in conjunction with the existing tramways.

❦ ❦ ❦

North London Tramways.

AT the meeting of the London County Council on Tuesday, a tender, amounting to £27,925, of Messrs. John Mowlem and Co., Limited, was recommended for the execution of

the roadwork and platelaying in connection with the construction for the nndergrouud condnit system of electrical traction of North London tramways, anthorised by the London County Tramways Act, 1900, from Clerkenwell Road, via Rosebery Avenue and St. John Street Road, to the Angel public-house, Islington. It is proposed that in the first instance the lines shall be worked for horse traction, although it is desirable, in order to avoid the expense and inconvenience which wonld be caused by a second disturbance of the thoroughfares within a comparatively short time, to construct the tramways at once for electrical traction. The Highways Committee of the Council has arranged, however, that, until such time as electrical traction shall be adopted, the conductor rails shall not be placed in the tramways conduits; and it has also been thought desirable to construct certain of the junctions with existing tramways for horse traction only. The tramways when completed will be worked by the North Metropolitan Tramways Company in conjunction with the Council's (Northern) Tramways.

Contractors for the Work.

IT was a further recommendation by the Highways Committee at the last meeting of the London County Council in connection with these tramways that Messrs. John Mowlem and Co., Limited, be allowed to sub let to the undermentioned firms (or to such other firm or firms as might be approved hy the engineer under the contract) the following portions of the work:—(1) To the Hadfield Steel Foundry Company, Limited, of Sheffield, the manufacture of the special work, consisting of points, crossings, &c.; (2) to the Anderston Foundry Company, Limited, of Middlesbrough, the manufacture of cast-iron yokes, road boxes, and covers; (3) to the Associated Portland Cement Manufacturers, Limited, and Messrs. Martin, Earle and Co., the supply of cement; and (4) to Messrs. Bayliss, Jones and Bayliss, Limited, of Wolverhampton, the manufacture of the tie-bars and bolts.

Proposed Extension at Derby.

ON Wednesday a motion was before the Derby Town Council to the effect that the Tramways Committee be authorised to proceed with the making of the requisite arrangements for the construction of electric tramways from the Market Place to the borough boundary on Kedleston Road, including the necessary extension of the car sheds and the provision of additional cars. Several members asked for fuller particulars as to the cost, &c., of the extension, and, after some discussion, the resolution was withdrawn for one month.

Brighton Municipal Trams.

IN an article on the completion of the third year's traffic on two of the routes of the Brighton Municipal tramways, the *Sussex Daily News* shows that, although the total of 4,769,820 passengers exhibits a decrease of 134,457 on the number carried the previous year, the re-organisation and increase of fares have led to a revenue of £20,766 11s. 10d., or an increase of £332 2s. 1½d.

Tramways and Light Railways Association.

THE annual meeting of this association will be held on Friday next in the rooms of the Society of Arts. At these rooms Mr. G. A. Trube (member) will read a paper on "Brakes," at 8 p.m., on Thursday, February 23. By kind permission of Mr. Clifton Robinson, the members of the association will be shown over the works of the London United Tramways on Wednesday next. In the official circnlar for February a full report is given of the paper read by Mr. H. M. Sayers, M.Inst.C.E. (memher), on January 13, and of the discussion thereon. The visit to the Central London Railway on January 16 is also described.

THE Lord Mayor of Leeds (Mr, Robert Armitage), recognising the pressure of the times, has discarded for the present the customary civic receptions to citizens. He is, instead, issuing invitations to an entertainment to people in receipt of out-door relief in the Leeds Union. Tickets to the number of 6,150 are being distributed.

INDUSTRIES WANTED.

THE NEED OF NORTHAMPTON.

COUNCILLOR PITTS has given notice of the following resolution at the meeting of the Northampton Town Council on Monday last:—

> That, in view of the large number of unemployed in Northampton, the difficulty of obtaining situations with private employers, and the great amount of municipal work that requires doing at the present time, this meeting of the Council instructs the surveyor to reinstate the men discharged from the service of the Corporation last week. The Council further instructs the surveyor to discharge no workmen without the permission to do so from the Highway Committee.

THE Mayor of Halifax (Alderman E. Robinson) on Wednesday started a new generating set at the Corporation electricity works, which has been provided at a total cost of £6,631. Alderman Hey stated that this brought up their equipment to 8,000 horse-power, with a capacity of 4 500 kilowatts. They had now only a margin of one engine over the maximnm demand. If the rate of consumption increased as it had done hitherto they would before very long be compelled to extend their plant still further. The new engine was given the name of "Enoch Robinson," as a compliment to the Mayor.

MUNICIPAL ELECTRIC TRAMWAY RETURNS.

Undertaking.	Date of Opening.	Length of Route.	Total Length Track.	Year ends.	Last Weekly Return.		Corresponding Week 1904.		Total Receipts for Year.	
		Miles	Miles		Receipts.	Passengers.	Receipts.	Passengers.	1905.	1904.
Aberdeen	Dec. '99	2·50	5	May 31	1,064	[illegible] —	1,057	—	47,784	41,966
Ayr	Sept. '01	6	8	—	165	49,471	166	48,494	11,393	10,863
Birkenhead	Feb, '01	13·52	23·53	March 31	928	193,300	966	200,059	45,335	46,103
Blackburn	Mch. '99	13½	13½	March 25	—	—	—	—	—	—
Blackpool	Oct. '84	3	6	March 31	251	—	256	—	44,685	38,636
Bolton	Nov. '99	25	40	March 31	1,633	357,831	1,625	354,313	80,291	79,982
Bournemouth	July '02	11·8	18·2	March 31	769	145,260	776	144,834	53,445	17,637
Bradford	July '98	53¾	95½	March 31	3,729	—	3,366	—	169,463	142,332
Brighton	Nov. '01	6·5	11·75	—	739	167 023	688	165,129	—	—
Burnley	Mch. '02	10·60	10·60	March 31	940	176,232	803	143,648	—	—
Cardiff	Dec. '01	16	30	March 31	—	—	—	—	—	—
Darwen	Oct. '00	4·5	4·25	Dec. 31	—	—	—	—	—	—
Dover	Sept. '97	3·5	4·5	March 31	161	41,442	161	41,723	9,717	9,844
Dundee	July '00	12·56	23·1	March 31	808	—	768	—	24,512	—
East Ham	June '01	6·6	10·75	March 31	607	227,436	581	222,204	30,720	29,084
Glasgow	Oct. '98; Extens., April '01	72½	143	May 31	13,634	3,585,808	13,420	3,553,633	498,107	474,758
Halifax	—	—			2,209	530,160	2,160	518,400	68,008	61,151
Huddersfield	Feb. '01	—	32	March 31	—	—	—	—	—	—
Hull	July '99	12·25	25	March 31	2,001	480,319	1,935	476,537	94,521	83,656
Ilford	Mar., '03	6·5	10·5	—	327	88,059	305	—	19,411	18,458
Ilkeston	May, '03	3·5	4	—	91	24,455	109	28,314	—	—
Leeds	Aug. '97	37	71	March 25	5,093	—	4,978	—	252,103	238,252
Liverpool	Nov. '98, June '99	66	114	Dec. 31	9,278	2,017,233	9,557	2,070,204	29,480	28,690
L.C.C.*	1897, Jan. '99	—	47⅞	March 31	11,470	—	8,906	—	538,012	418,906
Manchester	June '01	72.	131·50	March 31	11,267	2,308,152	10,838	2,212,811	525,064	502,637
Nelson	Mch. '02	2·75	3·5	—	96	30,004	93	27,447	5,039	3,709
Newcastle	Dec. '01	17	36	—	3,492	789,329	3,509	780,345	—	—
Oldham	Dec. '00	18	28	—	1,360	269,620	1,052	233,042	51,877	51,432
Portsmouth	Sept. '01	15	28	—	1,294	285,759	1,237	275,510	83,022	76,596
Reading	July '03	7½	13⅜	—	494	116,184	490	114,483	27,583	—
Rotherham	Jan. '03	7⅛	—	March 25	386	87,899	391	86,758	17,524	14,777
Salford	Oct. '01	32½	59½	March 31	3,800	724,173	3,686	709,360	170,490	167,969
Sheffield	Sept. '99	32½	59½	March 25	4,393	1,164,727	4,101	1,037,051	205,115	199,970
Southampton	Sept. '98	9⅝	16⅝	March 31	719	159,400	705	137,965	41,852	44,224
Southend-on-Sea	July '01	6·85	—	March 31	—	—	—	—	—	—
Sunderland	July '00	12·27	23	—	1,107	—	1,072	—	54,714	53,298
Wallasey	Mch. '02	9	10·5	March 31	609	116,761	571	109,756	32,269	30,145
Walsall	Jan. '04	12½	13½	Dec. 31	425	76,810	450	82,942	1,689	1,900
West Ham	Feb. '04	9·78	12·98	—	1,018	298,637	—	—	46,212	—
Wolverhampton	April '02	11·258	16·848	March 31	657	142,773	389	77,743	—	—

* Also includes the horse lines.

DICK, KERR & Co., LIMITED,

ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Contractors for Municipal Lighting and Tramway Schemes.

Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

NOW READY. Price 12/6.

THE IMPERIAL DIRECTORY

OF

ELECTRIC LIGHTING & ELECTRIC TRACTION WORKS,

1905.

Edited and Compiled by C. S. VESEY BROWN, M.Inst.C.E., M.I.E.E.

The Directory contains a List of the Works established under Statutory Powers in

GREAT BRITAIN & IRELAND, INDIA & the BRITISH COLONIES,

For the Supply of ELECTRIC LIGHTING, POWER, and TRACTION.

The Statistics given are divided into Three Parts :—

(a) Names and Addresses of all the Directors, Members of Municipal Committees, and the Principal Officers connected with each Works, together with their Postal and Telegraphic Addresses.

(b) Technical Description of each Works, showing the "System of Supply," detailed list of the Machinery, Storage Cells, Cables, Meters, &c., with which the Works are Equipped, giving the Makers' Names in each case, also the Prices Charged for Light, Power, and Traction.

(c) The Financial Results for the Last Completed Year of Working, showing Capital Expended, Revenue and Costs of Generation, &c., are Given in Detail.

LONDON: HAZELL, WATSON & VINEY, Ltd., 52, Long Acre, London, W.C.

Copies can also be obtained as under :—

BERLIN: F. P. W. STIELER, 149, Kurfursten Strasse.
INDIA: THACKER, SPINK & Co., Calcutta and Simla. THACKER & Co., Ltd., Bombay.
AFRICA: J. C. JUTA & Co., Cape Town, Port Elizabeth, Grahamstown, Johannesburg, Stellenbosch, Durban, and East London.
AUSTRALASIA: GEO. ROBERTSON & Co., Proprietary, Ltd., Melbourne, Sydney, Adelaide, and Brisbane.
CANADA: "Canadian Electrical News," Confederation Life Building, Toronto.

GREAT ECONOMY WITH

GALLOWAY BOILERS AND ENGINES

STEEL BOILERS. ALL SIZES AND PRESSURES. READY DELIVERY.

STEAM ENGINES. HIGH-SPEED AND OTHER TYPES QUICK DELIVERY.

ENGINE AND BOILER REPAIRS PROMPTLY EXECUTED.

BRANCH OFFICES:

LONDON: 17, Philpot Lane.
GLASGOW: 128, Hope Street.
BIRMINGHAM: Iron Exchange.
NEWCASTLE-ON-TYNE: 13, Mosley Street.

GALLOWAYS LIMITED

MANCHESTER.

Appointments Vacant.

Latest date for applications in parentheses.

Attendant (Head Male). £80. Matron, £80. W. G. Austin, Guildhall, Westminster, S.W. (February 24.)

Assistant Borough Surveyor. £150. G. H. Kite, Town Clerk, Taunton. (February 13.)

Assistant Master. £40. J. Hutton Haylor, Guardians' Offices, 329, High Road, Kilburn, N.W. (February 4.) See advt. in No. 626.

Building Inspector. £150. Henry Humphris, Council Offices, Hendon. (February 6.)

Chemist. The Chairman. Works Sub-committee of Gas Department, Council House, Birmingham. (February 20.)

Children's Attendant. J. Appleton, Guardians' Offices, 57, Broad Street, Bloomsbury. (February 4.)

Clerk in Workhouse Master's Office. £35. G. M. Howard, Poor Law Offices, Nottingham. (February 7.)

Draughtsman. £100. Town Clerk, Huddersfield. (February 7.)

Electrical Engineer (Assistant). £120. J. H. Wray, Borough Electrical Engineer, West Bromwich. (February 4.)

Engineer (Mechanical). £2 per week. R. E. Fox, Town Clerk, Leeds. (February 9.)

Foreman of Dust Destructor. £2 per week. John Hunt, Town Clerk, Westminster City Hall, Charing Cross Road, W.C. (February 6.) See advt. in No. 626.

Harbour Engineer. £200. T. J. Mercer, Harbour Office, Sligo. (February 15.)

Inspector of Main Roads. £175. John Willmot, County Surveyor, 6, Waterloo Street, Birmingham. (February 8.)

Inspector of Nuisances. £150. Henry Humphris, Council Offices, Hendon. (February 6.)

Inspector of Nuisances, £80; **Junior Clerk,** £30. A. Hallard, Town Clerk, Town Hall, Portsmouth. (February 14.)

Junior Clerk in Borough Accountant's Department. £70. James Wilson, Town Clerk, St. Marylebone Town Hall, W. (February 20.) See advt. in this issue.

Ledger Clerk, £100. **Junior Clerk,** £50. J. Wilson, Town Clerk, Town Hall, Marylebone Lane, W. (February 4.)

Master and Matron. £90 and £45 respectively. E. T. Westlake, Clerk to Guardians, 20, Portland Street, Southampton. (February 6.)

Master and Matron. £80 and £45. A. Ballard, Clerk to Guardians, 5, Magdalen Street, Oxford. (February 9.)

Master and Matron (Married Couple). £45 and £30. R. B. Rogers, Clerk to Guardians, Union Offices, Falmouth. (February 1.)

Matron (Assistant). £30. Wm. South, Clerk to Guardians, 24, North Street, Romford. (February 6.)

Nurse. £26. George Leigh, Clerk to Guardians, Union Offices, Knutsford. (February 8.)

Nurse. £30. C. Patrick, Union Offices, Lewes. (February 9.)

Nurse (Assistant). W. S. V. Cullerne, Clerk to Guardians, Commercial Road, Guildford. (February 10.)

Nurse (Assistant). £20. W. S. Price, Union Offices, Wellington, Somerset. (February 9.)

Nurse (Assistant). £25. C. Waugh, Clerk to Guardians, Hayward's Heath. (February 9.)

Porter and Portress (Married couple.) £24 and £20 respectively. Wm. Weed, Clerk to Guardians, Queen Street Chambers, Maidenhead. (February 7.)

Quantity Surveyor. W. A. Williams, Town Clerk, Town Hall, Hackney, E. (February 2.)

Rate Collector. J. A. Kingdon, Town Clerk, Town Hall, Basingstoke. (February 7.)

Record and Stationery Clerk. £120. H. A. Millington, Clerk of County Council, County Hall, Northampton. (February 6.) See advt. in No. 626.

Relieving Officer (Assistant). £80. D. Thomas, Guardians' Offices. Bishop's Road, Victoria Park, N.E. (February 6.)

Relieving Officer. £115, &c. G. W. Coster, Union Offices, St. James's Road, Dudley. (February 6.)

Road Foreman. £2 5s. per week. H. Humphris, Council Offices, Hendon. (February 6.)

Road Foreman. 35s. per week. W. E. Foster, Municipal Buildings, Aldershot. (February 6.)

Secretary of Gas Light Company. £250. J. D. Ashworth, Engineer and General Manager, Gas Works, Flathouse, Portsmouth. (February 8.)

Secretary of Surveyor's Institution. £600. P. Currey, 37, Norfolk Street, Strand, W.C. (February 15.)

Sewage Farm Manager. J. T. Parker, Clerk to District Council, Wellingborough. (February 7.)

Steward's Clerk. £60. A. A. Millward, Clerk to Guardians, Town Hall, Pancras Road, N.W. (February 2.)

Superintendent and Matron (Married couple). £80 and £40. T. Smith, Clerk to Guardians, Union Offices, The Edge, Sheffield. (February 11.)

Surveyor of Highways and Inspector of Nuisances. £120. E. P. Crowdy, District Council Offices, Faringdon, Berks. (February 13.)

Surveyor and Inspector of Nuisances. G. M. Capon, Public Offices, Ripley, Derby. (February 4.)

Tenders Wanted.

Latest date for sending in tenders in parentheses.

Advertising on Tramway Tickets. W. H. Snow, Town Clerk, Southend-on-Sea. (February 8.) See advt. in No. 626.

Artisans' Cottages—Plans, &c., invited. W. Bagshaw, Clerk to District Council, Public Offices, Wembley. (February 8.)

Contracts. J. A. Johnson, Town Clerk, Town Hall, Walworth Road, S.E. (February 15). See advt. in this issue.

Contracts — Works and Stores. Ernest F. Collins, Town Hall, Chiswick. (February 9.) See advt. in this issue.

Contracts—Road Material, &c. A. B. Bryceson, Town Clerk, Town Hall, Woolwich. (February 9.) See advt. in this issue.

Contracts—Materials, &c. W. M. Wilkins, Town Clerk, Town Hall, Battersea. (February 8.) See advt. in No. 626.

Contracts—Goods and Works. H. Thompson, Town Clerk, Town Hall, Hammersmith. (February 8.) See advt. in No. 625.

Contracts—Goods and Materials. James Paton, Borough Engineer, Municipal Offices, Plymouth. (February 18) See advt. in No. 626.

Contracts—Works and Materials. F. D. Askey, Town Clerk, Southwood Lane, Highgate, N. (February 20.)

Contracts. A. F. Kidson, Town Clerk, Folkestone. (February 15.)

Contracts—Works and Materials. C. H. F. Barrett, Town Clerk, Town Hall, Pancras Road, N.W. (February 6.) See advt. in No. 626.

Contracts—Works, Materials, &c. A. P. Johnson, Town Clerk, Haverstock Hill, N.W. (February 15.)

Contracts—Works and Materials. Geo. W. Clarke, Town Clerk, Municipal Offices, 15, Great Alie Street, Whitechapel. (February 11.) See advt. in this issue.

Contracts—Work and Materials, &c. W. Chambers Leete, Town Clerk, Town Hall, Kensington. (February 8.)

Contracts for Supplies. Fredk. Ryall, Town Clerk, Town Hall, Spa Road, S.E. (February 6.) See advt. in No. 625.

Contracts for Supplies. P. Thomas, Town Clerk, Town Hall, Leigh, Lancs. (February 11.)

Contracts for Supplies. Fred B. Senior, Town Clerk, Town Hall, Richmond, Surrey. (February 18.)

Contracts for Supplies. F. E. Hilleary, Town Clerk, Town Hall, West Ham, E. (Feb. 9.) See advt. in No. 626.

Contracts for Supplies. G. W. Preston, Town Clerk, Town Hall, Rosebery Avenue, E.C. (February 6.) See advt. in No. 626.

Contracts for Materials. H. G. Whyatt, Borough Engineer, Town Hall, Grimsby. (February 6.)

Contracts for Supplies, Works, &c. E. Wright, Town Clerk, Town Hall, Catford, S.E. (February 6.)

Electric Tramcars. J. Atkinson, M.I.C.E., Borough Surveyor, Town Hall, Stockport. (February 6.)

Electrical—Dynamo. Boiler, and Switchboard. T. B. Laing, Town Clerk, Council Chambers, Leith. (February 15)

Electricity Department—General Stores. H. Thompson, Town Clerk, Town Hall, Hammersmith. (February 8.)

Kerbing, Metalling, Channelling, &c. E. Wright, Town Clerk, Town Hall, Catford, S.E. (February 6.)

Loans of £50 and Upwards. Haswell Brown, Borough Accountant, Town Hall, Sunderland. See advt. in this issue.

Loan of £936. H. C. Broome, Clerk to District Council, Failsworth. (February 11.)

Loans of £2,000 and £1,000. H. W. Stephens, Clerk to District Council, High Street, Winchcomb R.S.O., Gloucester. (February 16.)

Materials, Labour, &c. W. Stubbs, Borough Engineer, Municipal Offices, Blackburn. (February 11.)

Municipal Buildings—Competitive Designs Invited. H. J. Smith, Town Clerk, Town Hall, Kennington Green, S.E. (March 30.)

Printing and Stationery. F. D. Askey, Town Clerk, 99, Southwood Lane, Highgate, N. (February 20.) See advt. in No. 626.

Printing and Stationery. E. H. Mitchell, Clerk to Guardians, 1, St. Michael's Road, Portsmouth. (February 8.)

Printing and Stationery. J. Bell, Clerk to District Council, Surbiton. (February 20.)

Pumping Machinery. J. Dewhirst, Avenue Chambers, Chelmsford. (February 24.)

Railway Wagons. R. Hyde, Town Clerk, Town Hall, Stockport. (February 15.)

Removal of Refuse. A. Atkinson, Clerk to the District Council, Public Offices, Cheriton, Kent. (February 6.)

Reservoir. Sir Samuel Johnson, Town Clerk, Guildhall, Nottingham. (February 13.) See advt. in No. 623.

Reservoir, &c. F. Hughes, Clerk to District Council, Ebbw Vale. (February 6.)

Road Works. A. Atkinson, Clerk to the District Council, Public Offices, Cheriton, Kent. (February 6.)

School—Competitive Designs Invited. Premiums £50, £30, and £20. Hy. Hamer, Town Clerk, Town Hall, Preston. (February 28.)

Schools—Designs Invited. Premiums £50 and £25. C. G. Watkins, Education Office, Aylesbury. (February 28.)

Sewage Disposal and Refuse Destructor Works. H. J. Saunders, Town Hall, Twickenham. (February 9.)

Sewage Disposal Works. H. F. J. Banham. Clerk of District Council, Royston, Herts, (February 8.)

Sewering, Paving, &c. J. Haslam, Town Clerk, Municipal Offices, Bury. (February 14.)

Stationery. Leonard Potts, Town Clerk, Council Office, Poplar. (February 26.) See advt. in this issue.

Street Works. J. C. Hayward, Sessions House, Dartford. (February 6.)

Supplies—Gas and Electricity Committees, &c. A. B. Crosby, Town Clerk, Stockton-on-Tees. (February 10.)

Surface Drainage. F. Stevens, Clerk to District Council, Beckenham. (February 6.)

Tramways—Construction of. J. Moore Hayton, Town Clerk, Court Buildings, South Shields. (February 20.)

Tramways Contracts. G. W. Bailey, Town Clerk, Bournemouth. (February 15.)

Vans for Conveying Infected Articles. Vivian Orchard, Town Clerk, 20, Tanners Hill, Deptford. (February 13.) See advt. in No. 626.

Wood Paving Blocks. F. Stevens, Town Clerk, Town Hall, Bradford. (February 11.)

York Stone. Francis Robinson, Town Clerk, Town Hall, Greenwich Road, S.E. (February 8.)

TO CONTRACTORS.

IT WILL PAY YOU

to Subscribe to

THE MUNICIPAL JOURNAL.

Office: 12, SALISBURY SQUARE, LONDON, E.C.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CARTOONS.
Specialists in Photo.-Litho.
Photo-Copies, and Sun Prints.
VACHER & SONS. Westminster.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

ROAD SCAVENGER.
F. COWLEY, C.E.,
Launceston, Cornwall.

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION

IS FAR IN EXCESS

OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL, 12, SALISBURY SQUARE, LONDON.

IRON and WOOD FRAMED BUILDINGS (EVERY DESCRIPTION), BUNGALOWS, CHURCHES

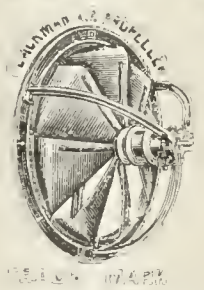
AT LOWEST COST.

CHARLES LEATHER & SONS
(ESTABLISHED 1862),
114, MERTON ROAD, and RAILWAY WHARF,
WANDSWORTH, LONDON, S.W.

WILLIAMSON
ASHTON-UNDER-LYNE,
Telephone 320.

FOR TICKETS AND PUNCHES FOR TRAMWAYS, &c.
TICKET NIPPERS.
TICKETS, DATING MACHINES, AND ISSUING CASES
FOR RAILWAYS, BATHS, &c.

BLACKMAN



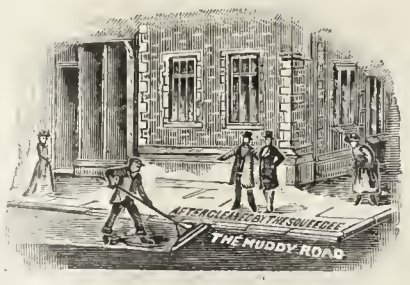
ELECTRIC FANS.

GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

SHEATH BROTHERS,
SQUEEGEE MANUFACTURERS,

Borough Councils and Railway Companies.



Borough Councils and Railway Companies.

87, CITY ROAD, LONDON.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment.
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

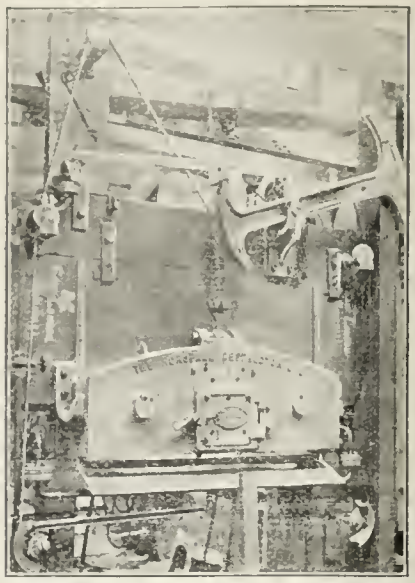
BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

BONDS are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary SHIRLEY FUSSELL.



Portion of Plant for Bloemfontein, South Africa.

Silver Medals Sanitary Institute of Great Britain, 1896, 1902 and 1903.

Gold Medal Brussels Exhibition, 1897.

THE

HORSFALL DESTRUCTOR Co., Ld.

LEEDS,

AND

19, OLD QUEEN STREET, WESTMINSTER, S.W.

Telegrams: {"DESTRUCTOR, LEEDS" / "DESTRUCTOR, LONDON"} A B C and Lieber's Standard Codes used.

Telephone: {LEEDS No. 2006 Central. / LONDON No. 263 Victoria (G.P.O.)}

March 3,

A

DATE TO

REMEMBER.

See page 83.

EQUIFEX DISINFECTORS

SATURATED STEAM (Patent)

Adopted by the Metropolitan Asylums Board for the Brook Hospital; H.M. War Office for the ROYAL VICTORIA HOSPITAL, NETLEY, and by the Governments of India, Victoria, New South Wales, &c.; and the recent Disinfection Stations of the Boroughs of Lambeth, Fulham, Battersea, Brighton, &c., &c.

Rapidity in Operation. Absolute Immunity from Damage by Scorching. Economy in Fuel. Automatic Control and Record of the Work Done.

The only apparatus complying with the recommendations of the International Sanitary Congress, Buda-Pesth, 1894. Only Medal for Steam Disinfectors, Sanitary Institute Congresse, and highest awards wherever exhibited. Over 1,200 in actual use in all parts of the world.

SPRAY DISINFECTORS, for ROOMS, &c., reduces to a minimum the disturbance of inmates. Cost a fraction of the time and expense required in use of SO_2, and disinfect with certainty. THOUSANDS IN ACTUAL USE.

THE PASTEUR FILTER

The only Filter awarded Grand Prix Paris, 1900.

OFFICIAL GOVERNMENT STATEMENT.

"Wherever the Pasteur Filter has been applied Typhoid Fever has disappeared."

J. DEFRIES & SONS, Ltd., 146 & 147, HOUNDSDITCH, LONDON, E.C.

Printed and Published by EDWARD LLOYD, Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE
MUNICIPAL JOURNAL

No. 628.—Vol. XIV. FRIDAY, FEB. 10, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. One Penny.

Official Advertisements.

COUNTY BOROUGH OF SUNDERLAND

ELECTRICITY DEPARTMENT.

TO MAKERS OF THREE-PHASE HIGH TENSION ELECTRICAL MACHINERY.

THE Corporation of Sunderland are prepared to receive TENDERS for the SUPPLY of four 250 k.w. Synchronous Three-Phase Motor Generators.

The specification and form of tender can be obtained on application to the Borough Electrical Engineer, Mr. J. F. C. Snell, M.Inst.C.E., at his Office, Town Hall, Sunderland, and on payment of a deposit of one guinea (£1 1s.), which will be returned on receipt of a bona-fide tender.

Sealed tenders, addressed to the "Chairman of the Electricity and Lighting Committee," Town Hall, Sunderland, must be delivered at my Office not later than 12 o'clock noon on Friday, the 24th day of February, 1905. Tenders to be endorsed "Three-phase Motor Generators."

The Corporation do not bind themselves to accept the lowest or any tender.

FRAS. M. BOWEY,
Town Clerk.

Town Hall,
Sunderland,
6th February, 1905.

COUNTY BOROUGH OF SUNDERLAND

THE Corporation are prepared to receive LOANS of £50 and upwards on security of the Rates of the Borough, at six months' notice or for a fixed period.

For further particulars apply to Haswell Brown, Borough Accountant, Town Hall. Sunderland.

13th December, 1904.

WILLESDEN URBAN DISTRICT COUNCIL.

FOR SALE.

VERTICAL BOILER, WASHINGTON LYON DISINFECTOR, AND LAUNDRY APPARATUS.

THE above Council, having recently erected a new Steam Laundry in connection with their Isolation Hospital, are desirous of disposing of the FITTINGS in the old Laundry, including a Vertical Boiler (7ft. by 3ft. cyclinder, 5 h.p.), Washington Lyon Disinfector with accessories, Benham Hot-Water Cylinder, Bradford Hand-washing Machine, vowel type, with Wringer attached, Kitchen Range, &c.

A list of the various articles, which are in good condition and can be inspected by appointment, will be forwarded on application by proposed purchasers to the undersigned.

By order.
STANLEY W. BALL,
Clerk to the Council.

Public Offices,
Dyne Road,
Kilburn, N.W.
1st February, 1905.

Official Advertisements.

METROPOLITAN BOROUGH OF BETHNAL GREEN.

PUBLIC HEALTH DEPARTMENT.

APPLICATIONS are invited for the post of Third ASSISTANT CLERK in the above Department. Salary to commence, £80 per annum, rising by annual increments of £7 10s. on approved service to a maximum of £110 per annum.

Candidates must be between the ages of 20 and 24 years, must be good shorthand writers and typists, and quick at figures. Those with knowledge of Public Health work preferred.

Applicants must be prepared for test examination if required by the Council.

Application forms may be obtained from the Chief Inspector, Public Health Department, No. 2, Paradise Row, Cambridge Road, Bethnal Green, N.E., to whom they must be returned by the 20th February, 1905.

By order.
ROBERT VOSS,
February, 1905. Town Clerk.

BATTERSEA BOROUGH COUNCIL.

TO PRINTERS, STATIONERS, &c.

THE Council invite TENDERS for SUPPLYING the whole or part of their PRINTING, STATIONERY, &c., for the next three years.

Tenders must be made on forms (containing full particulars) to be obtained at the Town Hall, Lavender Hill, S.W.

W MARCUS WILKINS,
Town Hall, Battersea. Town Clerk.
9th February, 1905.

BOROUGH OF EAST HAM EDUCATION COMMITTEE.

TENDER FOR SCHOOL MATERIALS.

TENDERS are invited for the SUPPLY of Books, Apparatus, Stationery, and Kindergarten Materials.

The contract will be for a period of two years, ending 31st March, 1906.

Copies of the Schedules and form of tender may be obtained from the undersigned, and samples of the materials required may be seen at the Education Office, Wakefield Street, East Ham, between the hours of 10 a.m. and 4 p.m. (Saturdays 9 to 12.)

Tenders, on the printed form, must be delivered to me not later than 4 o'clock in the afternoon of Monday, 27th February, 1905, and should be endorsed "Tenders for Books, Apparatus, and Stationery."

The Committee do not bind themselves to accept the lowest or any tender.

H. C. PADGETT,
Secretary.

Education Office, East Ham, E.
8th February, 1905.

Official Advertisements.

BOROUGH OF EAST HAM.

TENDERS FOR TRAMCARS.

THE above-named Council invite TENDERS for the SUPPLY and Delivery of Five Double-deck Roof-covered TRAMCARS, complete with Electrical Equipment.

Full particulars, form of tender, and specification may be obtained upon payment of the sum of one guinea (which will be returned upon receipt of a bona-fide tender), from Mr. W. C. Ullmann, M.I.E.E., M.I.M.E., Nelson Street, East Ham, E.

Tenders, to be endorsed "Tenders for Tramcars," and delivered, addressed to the Chairman, Electric Lighting and Tramways Committee, Town Hall, East Ham, E, not later than 12 o'clock noon on Tuesday, February 21st, 1905.

The person or persons whose tender is accepted will be required to pay the trade union rate of wages and to observe the trade union hours of labour, and also enter into a contract with a bond for the due and proper performance of the works tendered for.

The Council does not bind itself to accept the lowest or any tender.

By order.
C. E. WILSON,
Town Clerk.

Town Hall, East Ham, E.
7th February, 1905.

CROYDON RURAL DISTRICT COUNCIL

APPOINTMENT OF INSPECTOR OF NUISANCES.

THE Croydon Rural District Council invite Applications from persons between the ages of 25 and 35 years, for the office of INSPECTOR OF NUISANCES.

The person appointed will be required to devote his whole time to the duties of his office.

The commencing salary will be £130 per annum, rising by annual increments of £5 to a maximum of £200, together with uniform and bicycle.

Candidates must have had thorough practical experience in the duties of an Inspector of Nuisances, and must possess the Certificate of the Sanitary Institute or other similar body, and the appointment will be made in the first instance for one year, subject to the sanction of the Local Government Board.

Applications to be delivered to the undersigned on or before the 15th day of February, 1905.

Forms of application (together with a list of duties) may be obtained at my Office, or will be sent by post on receipt of a stamped foolscap envelope.

Canvassing is prohibited.

By order.
E. J. GOWEN,
Clerk of the Council.

Town Hall, Croydon.
2nd February, 1905.

PROMOTION impossible without good Penmanship. Rapid tuition. Send stamp for Prospectus No. 18. N. Broadbent (Prizeman and Medallist), Alston's College, Burnley.

WILL JENKINS

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

CRATES MANTELS & KITCHEN RANGES
CASTINGS & CHANDELIERS
BRUSHES PAINTS OILS & VARNISHES
BATHS LAVATORIES AND SANITARY ENGINEERS
WINDOW GLASS LEADED LIGHTS & CASEMENTS
BUILDERS' IRONMONGERY
BUILDERS' CASTINGS HEATING APPARATUS AND STABLE FITTINGS
TIMBER JOINERY WOOD & WHARF GOODS

All these Books are Bound (Cloth Boards) in

Two Volumes,

Containing 880 Pages 12" by 10" (54 in Lithography), and with our No. 27 Tariff.

Form one of the most Practical Up-to-date Guides to Purchasers of all kinds of Builders' and Sanitary Engineers' Goods yet issued.

We will send them **Carriage Paid,** to ARCHITECTS, ENGINEERS, and SURVEYORS upon receipt of bona-fide applications.
Please mention this Journal when applying.

YOUNG & MARTEN, LTD.

CALEDONIAN WORKS. STRATFORD, LONDON, ENGLAND.

EQUIFEX DISINFECTORS

SATURATED STEAM (Patent)

Adopted by the Metropolitan Asylums Board for the Brook Hospital; H.M. War Office for the ROYAL VICTORIA HOSPITAL, NETLEY, and by the Governments of India, Victoria, New South Wales, &c.; and the recent Disinfection Stations of the Boroughs of Lambeth, Fulham, Battersea, Brighton, &c., &c.

Rapidity in Operation. Absolute Immunity from Damage by Scorching. Economy in Fuel. Automatic Control and Record of the Work Done.

The only apparatus complying with the recommendations of the International Sanitary Congress, Buda-Pesth, 1894. Only Medal for Steam Disinfectors, Sanitary Institute Congresse, and highest awards wherever exhibited. Over 1,200 in actual use in all parts of the world.

SPRAY DISINFECTORS, for ROOMS, &c., reduces to a minimum the disturbance of Inmates. Cost a fraction of the time and expense required in use of SO_2, and disinfect with certainty. THOUSANDS IN ACTUAL USE.

THE PASTEUR FILTER

The only Filter awarded Grand Prix Paris, 1900.

OFFICIAL GOVERNMENT STATEMENT.

"Wherever the Pasteur Filter has been applied Typhoid Fever has disappeared."

J. DEFRIES & SONS, Ltd., 146 & 147, HOUNDSDITCH, LONDON, E.C.

TEMPERANCE PERMANENT BUILDING SOCIETY,

4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS

For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years.
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager.

BIRKBECK BANK

ESTABLISHED 1851.

2½ per cent. INTEREST

allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST

allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.

STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

WILLIAMSON

ASHTON-UNDER-LYNE,

Telephone 320.

FOR TICKETS AND PUNCHES FOR TRAMWAYS, &c.

TICKET NIPPERS.

TICKETS, DATING MACHINES, AND ISSUING CASES

FOR RAILWAYS, BATHS, &c.

READY ON TUESDAY NEXT.

The MUNICIPAL YEAR BOOK, 1905.

OFFICIALLY REVISED—IMPROVED AND EXTENDED.

INVALUABLE TO COUNCILLORS & OFFICIALS.

EDWARD LLOYD, Limited, 12, SALISBURY SQUARE, LONDON, E.C.

THE MUNICIPAL JOURNAL
ESTABLISHED AS "LONDON" THIRTEENTH YEAR OF ISSUE

No. 628.—Vol. XIV. FEBRUARY 10, 1905.

DISEASE FIGHTING.

Manchester has Opened a New and Important Laboratory of Public Health for the Study of Diseases, their Causes and Prevention. How Public Authorities Benefit by the Development of this Branch of the Manchester University. A Retrospect.

IN the opening of a new Public Health Laboratory Manchester now possesses one of the most important institutions of its kind in the north of England. The work conducted in this branch of the University of Manchester was initiated ten years ago at the Owen's College, and has met a distinct want in Manchester, Salford, and about 80 other sanitary districts, mostly situated in the counties of Lancashire and Cheshire. These districts have used the laboratory either permanently or occasionally.

An idea of the enormous extent of the work is gained from the fact that the aggregate population served amounts to between four and five million persons, but of these about one and a half million should be subtracted as being under authorities which have only occasionally required the services of the laboratory. The number of official reports alone issued during five years exceeds 20,000, without counting a large number of unofficial reports or consultations given by the director (Professor S. Delépine, M.B., B.Sc.) to authorities without any charge being made. Advice so given has often been of use in preventing unnecessary expenditure.

THE MUNICIPAL RESEARCH LABORATORY.

How this work has grown from small beginnings to its present important position is worth outlining before holding up the new building as an example to other large towns. The position taken by bacteriology is fairly well understood at the present time, and several important provincial towns, such as Liverpool, Sheffield, Birmingham, Aberdeen, Edinburgh, and Glasgow, have been provided since 1897 with more or less extensive and costly laboratories for the prosecution of bacteriological and chemical research applied to public health, and for the teaching of public health. The cost of these laboratories has been covered, partly by private donations, partly by municipal grants, and to a slight extent by fees. This Manchester bacteriological laboratory was the only one in the midst of a very populous district. Originally it was intended solely for teaching work, and was fitted and endowed accordingly. In 1891 the management could not appeal to authorities or to the public on the ground of established facts, and it had, therefore, to commence without assistance. But it began to be resorted to with increasing frequency by local authorities for the purposes of research work, and so in 1901 the Council of the College established the Public Health Bacteriological Laboratory as a special department, with Professor Delépine as director. At the same time an advisory committee was appointed, composed of representatives of county and municipal authorities and of the College and certain distinguished men interested in the development of public health laboratories.

The work of the department has been carried out by the director, three permanent medical assistants, three medical assistants, and a secretary. There are, in addition, three laboratory servants. Each sanitary authority desiring public health investigation makes a formal application to the director, which is submitted by him to the Council of the University for approval. The application states that the authority wishes to have the benefit of the facilities provided for, say, the diagnosis of typhoid fever, diphtheria, tuberculosis, or for the examination of water, milk, and various products as may be arranged from time to time. For these services a scale of fees exists.

During the ten years previous to 1903 over 250 medical men, veterinary surgeons, chemists, and agricultural teachers worked in the pathological laboratories with the object of acquiring a practical knowledge of bacteriology or of carrying out original research. Of these about 35 only attended short post-graduate courses bearing upon clinical bacteriology. The other 215 took advanced courses or entered as research workers. Among these there were more than 100 candidates for various diplomas in public health, and who, consequently, were also taking courses of chemistry as applied to public health. Several of these gentlemen have entered the pathological laboratory for more than one course; the total number of entries during the last 10 years being about 350. The income from this source has been on an average £120 a year—a sum insufficient to cover the teaching expenses. Some of the research workers entering the pathological department have done work which had no

bearing on public health, the work being connected with morbid anatomy. Of the laboratory students less than 20 have preferred to work at anatomical subjects; all the others have chosen to take up some bacteriological subject. The great work, therefore, which was the teaching of subjects connected with public health, has rendered a distinct service to the district generally, and to the local authorities in particular.

The rapid increase of the work of the department soon rendered it important that further accommodation should be obtained outside Owen's College—now the University of Manchester. In 1902, therefore, the laboratory was removed to what is known locally as the Stanley Grove Estate, departments being provided for research work as well as for the teaching of public health, bacteriology, and chemistry. In consequence, however, of the decision of the trustees of the Royal Infirmary to rebuild the Infirmary on the estate, it again became necessary to transfer the laboratory to another site. The buildings which have now been opened are in close connection with a new Infirmary in York Place, and it will thus be possible to co-ordinate an important branch of the pathological work at the Infirmary and at the University, and to avoid any unnecessary duplication. Of the £13,000 which the laboratory buildings and the site have cost, £6,000 has been contributed by the Board of Management of the Infirmary as compensation for displacement and in consideration of the selection of the rather expensive site close to the Infirmary. A gift of £2,000 has also been received from a friend of the laboratory. There remains a debt of about £5,000 upon the institution.

DR. A. SELLERS. DR. F. J. H. COUTTS.
DR. J. R. CARVER. PROF. SHERIDAN DELEPINE. DR. E. J. SIDEBOTHAM.

The new laboratory, opened by Mr. W. Crossley, is a plain and unpretentious building, yet admirably adapted for the purpose which it is intended to serve. Professor Delépine, who has planned the laboratory, has kept steadily in view the supreme importance of providing airy and well-lighted apartments in which the delicate work of the laboratory may be carried out effectively. There is not a room of any importance in the building which has not a range of windows running along its whole length. The laboratory faces north and south, but the main entrance is at the east end. Opening off the entrauce hall are, on the left, the caretakers' quarters, and on the right the clinical pathology laboratory, to be used in connection with the Royal Infirmary. Beyond and on the north side of the main corridor are the bacteriological class-room, a series of special research "cubicles," the general research room for the use of public authorities, and a preparation room. On the south side are a large chemical laboratory, a dissecting room, and various store-rooms and experimental rooms. On the first floor are rooms for the use of the director, the secretary, and the staff, together with a library and a large public health museum. The absence of a properly equipped museum has been long felt to be a disadvantage, and it will prove to be a very useful addition to the resources of the laboratory. One part of the new buildings has been given the name of the "Municipal Research Laboratory."

The tender of Messrs. W. Southern and Sons for the erection of the structure was accepted, and considerable assistance was given by that firm in helping, in the way of economy, in the demolition of the old laboratory and the building of the new.

The main objects of the work to be carried on in this new institution can be summarised under three general heads—(1) the continuous study of the conditions which are liable to cause disease in this country, so as to improve our methods of prevention; (2) the assistance of public authorities and medical profession in the diagnosis of obscure cases of disease; (3) the instruction of medical men, chemists, and veterinary surgeons who wish to devote themselves to public health.

MUNICIPAL ANNIVERSARY.

THE AMBITIONS OF WILLESDEN.

WILLESDEN, the largest urban district in England, celebrated the 30th anniversary of autonomous life this week. Anciently described as "Wilsdon, near Edgware," it was in February, 1875, that the first meeting of the Local Board was held at "White's Hotel," Brondesbury. Then Willesden had a population of 18,000, with a modest expenditure of £10,604; now the population exceeds 132,000, with an outlay last year of £287,203. The rateable value then was £94,761, and now £732,138. It is interesting to note that the present surveyor, Mr. O. Claude Robson, was appointed in March, 1875, just a month after the new order of things had been established. Mr. Stanley W. Ball was appointed clerk in 1896, but was the former clerk's assistant.

At a meeting of the District Council on Tuesday night, Mr. Biddiscombe moved that, as the natural outcome of the resolutions passed by the Council in favour of incorporation, the clerk be instructed to call a meeting of the Incorporation Committee.

Mr. Pincombe wished to move, as an amendment, that the Middlesex County Council be asked to consider the question of creating a number of boroughs like those created in London; but this was ruled out of order, as was also a proposal to ask the London County Council to make Willesden one of the London Corporations.

The motion came on after a three hours' meeting, when several members had left, and the voting for Mr. Biddiscombe's motion was equal—five to five—and it consequently dropped, the chairman refusing to vote. Mr. Biddiscombe said he would bring his motion up again.

TOWN CLERK OF GLASGOW'S FAREWELL.

THE Town Clerk of Glasgow (Mr. J. G. Mouro), who is retiring from municipal service, attended a meeting of the Glasgow Corporation for the last time in his official capacity last week. The Lord Provost—Sir John Ure Primrose—in the course of remarks expressing his sorrow at the retirement, said they all looked back—many of them for a longer period than others—on a career of 36 years that had been full of honourable record of faithful service rendered to the Corporation. It was a full record of faithful service, and it was full of perfect courtesy extended to every member of the Corporation; and he personally would say that while Mr. Monro acted as town clerk he had the most valued and perfect assistance from him that any occupant of the chair ever had. All desired that when Mr. Monro retired he would have many happy and prolonged days, and with the recollection that they would cherish his memory as one who worked with them faithfully, honestly, and well. Other speakers expressed regret at the loss of so able an official, and Mr. Monro, who was warmly received, expressed his thanks for the kind expressions.

PRIZES FOR CLEANLINESS.

NOVEL SANITARY SCHEME OF THE BELFAST CORPORATION.

WITH the object of more effectually combating the present smallpox outbreak and preventing the spread of infectious diseases in Belfast, the Public Health Committee of the city has adopted the somewhat novel scheme of offering prizes to the occupiers of small houses the rent of which does not exceed 4s. weekly. The prizes consist of allowances to cover rent for specified periods, and these will be awarded to the competitors who keep their houses, yards, and premises, including furniture, fittings, utensils, and windows, the cleanest and in the most sanitary condition between certain given dates. The author of the scheme is Mr. Robert Meyer, chief clerk of the Corporation.

The circular which has been issued by the Corporation in connection with the matter is as follows :—

COUNTY BOROUGH OF BELFAST.

PUBLIC HEALTH DEPARTMENT.

PRIZE COMPETITION.

For the Occupiers of Houses in Belfast, let at weekly rents not exceeding 4s., who shall keep their Houses, Yards, and Premises, including furniture, fittings, utensils, and windows, cleanest and in the most sanitary condition during the period 1st March till 31st December, 1905.

1st PRIZE.—52 weeks' rent to be paid to the landlord or landlord's agent, entitling the winner to the free occupancy of the same house during the year 1906.

2nd PRIZE.—26 weeks' rent, to be paid as above.

3rd PRIZE.—13 weeks' rent, to be paid as above.

CONDITIONS.

1. The house to be occupied from the 1st March, 1905, till 31st December, 1905, by the competitor, who must be either a married man living with his wife and family; or a widower, living with his family; or a widow, living with her family.
2. The number of occupants during the entire length of above period to consist of not less than five, all of one family.
3. The house to be occupied by one family *only*.
4. The officers, male or female, of the Public Health Committee to have access to every portion of the house and premises any day (Sundays excepted), between the hours of 8 a.m. and 8 p.m., for the purpose of inspection.
5. The term "house" in these conditions includes yard and premises comprised in the letting.
6. The officers of the Department to inspect the house, &c., of each competitor at least ten times in the ten months, at irregular intervals, with not less than one inspection each month, and report on its condition by filling up the official report form.
7. The reports to be dated and signed by the inspecting officer, and deposited with the assistant executive sanitary officer.
8. The assistant executive sanitary officer shall present the reports and a summary thereof to the Public Health Committee on Thursday, 21st December, when the Committee shall award the prizes, and the Committee's decision shall be final and be subject to no appeal whatsoever.
9. Entrance fee sixpence.
10. Entrance forms and copy of the conditions to be had on application to the Assistant Executive Sanitary Officer, Public Health Office. The forms to be signed by the competitor and countersigned by the landlord or landlord's agent, and deposited with the Assistant Executive Sanitary Officer before 1st March, 1905.

February, 1905.

All that competitors in this novel competition have to do is to fill up the following form :—

ENTRANCE FEE, 6D.

COUNTY BOROUGH OF BELFAST.

Public Health Department. Dwelling House Competition.

I,....., of ....., being the tenant of said house, do hereby desire to enter the competition for the occupiers of houses let at weekly rents not exceeding 4s., who shall keep their houses, yards, and premises, including furniture, fittings, utensils, and windows, cleanest and in the most sanitary condition during the ten months to end 31st December, 1905, on the terms of the within conditions, and I declare that the rent I pay for this house is.....per week.

..... *Tenant.*

..... *Landlord or Agent.*

Dated this.....day of February, 1905.

FOSTERING A TOWN'S TRADE.

DROITWICH AND ITS INDUSTRIAL DEVELOPMENT SUB-COMMITTEE.

STRIKING RECOMMENDATIONS.

FOR some time past Droitwich, with other English towns, has suffered considerable depression in trade. Many towns, like many individuals, suffer depression and decline without making an effort to renew life. But not so Droitwich. Last autumn a town's meeting was called, and it appointed a Town's Improvement Committee, to which was entrnsted the consideration of means whereby the bathing and other industries of the town conld be improved. Two sub-committees were subsequently elected—one to suggest means for the improvement of the bathing industry, and the other having for its object the introduction and development of new industries. The Baths Committee has now recommended, *inter alia*, additions, alterations, and improvements at the baths.

But still more interesting is a special report of the Industrial Development Sub-committee. In this the committee states it is advised that if small holdings could be acquired there wonld be plenty of demand for them, and that their establishment in the district would lead to the development of labour. In its conclusions it was guided by the advice of the gardening instructor for the Worcestershire County Council (Mr. J. Udale), who had reported that the profitable nature of market gardening was specially demonstrated at Evesham. Droitwitch was a good centre for the purposes of distribution, and the soil, subsoil, and meteorological conditions of the neighbourhood were suitable for the profitable growth of fruits, flowers, and vegetables. Returns of crops under normal culture might be anything between £30 and £60 per acre, and nnder abnormal cultivation some crops gave a return of from £60 to £120 per acre. Two hundred and fifty acres of market gardens, giving an annual average return of £40 per acre, would cause a circulation of £10,000 per annum. He had within the past year received inquiries for more than 50 acres of land for market gardening purposes.

This sub-committee has also had under consideration the question of introducing the basket-making industry into the town; and, on the advice of an expert in the trade, has unanimously come to the conclusion that a basket-making business could be established with every prospect of success. These recommendations have been approved by the Improvement Committee, which decided to take steps to acquire or rent, on reasonable terms, from 50 to 100 acres of land for small holdings.

"TO SAVE THE BABY."

NEW PLAN FOR BERMONDSEY.

BERMONDSEY Borough Council is about to embark npon an interesting scheme with the object of lowering the high rate of infantile mortality in its district. In his last annual report, the medical officer (Dr. R. K. Brown) pointed out that while the general death-rate showed a steady decline, the fignres of infantile mortality, both in Bermondsey and the country generally, did not point to a similar conclusion.

Dr. Brown further explained that the majority of deaths at this age could be attributed more or less directly to gastro-intestinal disorders, largely, if not solely, traceable to improper feeding. As one remedy for this state of matters, it was recommended that mothers should have systematic instructions on infant feeding.

Dr. Brown has therefore drawn up a series of these, and suggests that they should be printed on stiff cardboard, so as to last. The question of the best method of having them distributed to mothers has been under consideration, and the first one which occurs is distribution by the registrars of births, or by making an arrangement whereby they would supply the council with the names and addresses of infants registered, by which method it would be responsible for each mother receiving a copy. From inquiries made it seems that children are generally registered within about five weeks of birth, which delay it seems to the medical officer is a drawback, becanse in this period a good deal of mischief may be done.

The registrars are willing to distribute or supply the addresses at one penny each. The cost would be about £18 per annum.

Another way, either alone or in conjunction with the above, would be to supply each midwife and doctor practising in the borough with a certain number of these cards. It would be advisable for the midwives to give these cards in all cases in which they attend, since their practice would be amongst the poorest classes, and those in which the mothers are most in need of instruction. The doctors might be asked to give them in those cases in which they think such instructions would be nseful. The addresses of the midwives practising in the borough are now or will be shortly available, since the London Connty Council, owing to the new Midwives Act, will have to keep a register. Dr. Brown is afraid, however, that this method would not prove reliable in actual practice.

Organisations in the borough which employ district visitors, nurses, &c., might also be pressed into service for the distribution of these instructions, and in many of these conld be accompanied by further verbal recommendations. This is pre-eminently a work in which the services of one or two female sanitary inspectors would prove most useful.

In order, however, that the present children in the borough may benefit by these instructions, each family in the borough should be supplied with one of these cards immediately they are ready.

Dr. Brown's circular is entitled "Instructions on the feeding and care of infants and young children," and contains some most valuable information for mothers. The first sentence in it insists upon the superiority of natural over all other forms of feeding, and the circular goes on to advise the best artificial means in case natural feeding is not possible. Dr. Brown includes the following "feeding-table," which is of exceptional interest :—

Age of child.	Milk.	Barley Water.	Total amount each feed	No. of feeds in 24 hours
	Tablespoonfuls.			
During first fortnight	1	2	3	10
,, second ,,	2	3	5	9
,, second month	2½	3½	6	8
,, third ,,	4	4	8	7
,, fourth ,,	5	4	9	7
,, fifth ,,	7	4	11	6
,, sixth ,,	8	4	12	6
,, seventh ,,	9	4	13	6
,, eighth ,,	10	4	14	6
,, ninth ,,	12	4	16	6
Over twelve months ..	Pure milk		16 and	upwards

EDUCATIONAL NOTES.

The Rights of Representative Managers. An Inquiry into Free Evening Education. Board of Education Rulings on Supervision of Girl Pupil Teachers. Married Teachers. Gas Pipes. Teachers' Agreements. Voluntary School Holidays. Important Local Government Board Decisions. Secondary Education Unaided in the North Riding.

Bournemouth.—At a meeting of the Education Committee, Councillor Banks raised the question whether representative managers who had disclaimed all financial responsibility had the right to be present at all meetings of managers, irrespective of the business to be transacted. The town clerk said that they conld only attend in relation to snch matters as were to be dealt with by the whole body of managers, as provided by the Act of Parliament; and it was possible for the foundation managers to meet at any time.

Free Higher Education.—The Association of Technical Institutions has been making a general inquiry, from edncation authorities and managers of technical institutes, as regards the qnestion of how far they have been in the habit of providing in their evening schools either free, or partially free, education for special classes or for stndents generally. The scope of their inquiry embraced the question as to how far, if they did grant free admissions, they found the system working satisfactorily in respect of the earnestness of the students. The general conclusions of the council of the association are as follows:—"(1) That it is undesirable to establish any general system of free admission to evening continuation schools, or of free admission or admission at specially reduced fees to evening classes in technical institutions. (2) That it is unnecessary to grant entirely free admission to evening classes in technical institutions to any special class or body of students or workers engaged in skilled industries, such as apprentices or persons under 21 years of age. (3) That there is need for the establishment in all technical institutions of snfficient 'free studentships' or 'scholarships' to secure the admission of all qualified and deserving stndents who are unable, by reason of their limited means, to pay the nsual class fees without more sacrifice than should reasonably be expected of them."

Girl Pupil Teachers.—An education authority having inquired of the Board of Educatiou whether the requirements of Article 37 of the Code for 1903 with regard to the presence of a respectable woman during the instruction of girl pupil teachers by a master is still in force under the cnrrent regulations for the instruction of pupil teachers, the Board states in reply that the matter is now left to the discretiou of the local education anthority.

J.P.'s and Attendance Committees.—On the question of the right of justices of the peace who are also members of school-attendance committees to adjudicate on school-attendance cases, the Home Office replied as follows:—"The Secretary of State said, 'that he has no power to give binding decisions on points of law, but, as at present advised, is of opinion that a justice of the peace, who is also a member of a school attendance sub-committee, is not, *ipso facto*, disqualified from hearing cases under the Education Acts, but he is disqualified if, as a member of the sub-committee, he has been present at a meeting which passed a resolution directing the prosecntion.'"

Loans.—An education authority has asked the Local Government Board whether musical instruments, blackboards, easels, and clocks would be sanctioned by the Local Government Board as proper expenditure in connection with the loan for the provision of a new public elementary school. The Local Government Board, in reply, states that it would be prepared to entertain an application for the sanction of a loan for the pnrpose of the articles mentioned.

Plymouth.—The marriage of a lady teacher under the Education Committee is equivalent to three months' notice to leave. One of the assistant mistresses being dismissed on this score, the correspondent of the school wrote to the Board of Edncation on the matter, who informed him that the local authority was perfectly right in authorising the dismissal.

Reigate.—It was reported recently to the Education Committee that, owing to the practice of boys absenting themselves from school in order to act as caddies at the local golf tournament, the school attendance officer was instructed to take the names of such scholars. The appearance of this officer at the links seems to have had the desired effect, for no further complaints have been received on this score.

Repairs to Gas and Water Pipes.—The Board of Education on December 14, 1904, in reply to a question by an education anthority, stated that "the cost of necessary repairs to water or gas pipes is part of the cost of provision of the school honse (Sec. 3 of the Elementary Education Act, 1870), and as such should be defrayed by the managers."

Shropshire.—The decision of the Edncation Committee npon the question of teachers' agreements has been upheld by the Board of Education. The managers of a voluntary school wished to insert a clause in the agreements relating to religious instruction, and received the following reply from Whitehall:—"The Board concurs in the view expressed by the local education authority to the effect that no additional security as to the character of the religious instrnction would be secured by the adoption of the clause contained in the draft herewith returned or in the National Society's form of agreement. The duties of a teacher are to give instruction during school hours in accordance with the approved time-table, including the giving of both secular and religious instruction, and any special reference to the latter in the agreement is superfluous. The character of the religious instruction to be given in Voluntary schools is expressly provided for by Sec. 7 (6) of the Act. The Board does not, therefore, think that the managers need feel any conscientious objections to accepting the form of agreement proposed by the local education authority, which the Board understands is being generally adopted throughout the country. There does not appear to be at present any question before the Board requiring a decision under Sec. 7 (3) of the Education Act, 1902."

Staffordshire.—The Education Committee inquired of the Board of Education whether education committees have any legal right to fix the number of openings for any voluntary public elementary school in their area in excess of the 400 laid down in the code as the minimum indispensable for the recognition of the school. The Board of Edncation replied on December 13, 1904:—"In the opinion of the Board of Education the directions of the local education anthorities as to the secular instrnction which the managers are required to carry out under Sec. 7 (1) (a) of the Edncation Act, 1902, include directions as to the time or times when the school should be closed." The Education Committee has decided that it is desirable that religious instructiou in council schools shonld be inspected from time to time by its officers, and that provision should be made yearly for the examination of snch instrnction by volunteer examiners selected by the managers.

Yorkshire (North Riding).—At the qnarterly meeting of the County Council, a resolution to raise a rate of one halfpenny in the £ for secondary edncation was, after a heated discussion, defeated. It was decided to inform the Board of Education that in the Conncil's opinion a largely increased grant should be given for the instrnction and training of pupil teachers in rural districts.

CORRESPONDENCE.

MUNICIPAL AND SANITARY BYE-LAWS.

To the Editor.

SIR,—As there seems every chance of our bye-laws being revised and brought to date, would yon kindly grant me a little space in your influential journal to suggest that the use of some of the many approved exhanst ventilators to soil-pipe air-shafts be made compulsory. Whatever the virtue of the wire balloon may have been originally, it is invariably found to allow "blow-down" at seaside places or districts where gnsty winds are frequent.

Something better is also required than a cowl that merely permits escapement or prevents "blow-down," but does not promote an efficient up-dranght. An outlet ventilator should also be required in the external walls of rooms not provided with a fireplace, and an exhanst ventilating shaft to all kitchens, scnlleries, bathrooms, and closets.

If we would only abandon our present primitive methods of ventilation, much of the capital that nowadays goes to Continental health resorts might be kept in this country.—Yonrs, &c., MODERNUS.

"HOW MUNICIPAL TRADING RAISES RATES."

To the Editor.

SIR,—The Liberty and Property Defence League is again seeking to support its anti-municipal crusade by appealing to the return of Mr. Carter, borough treasurer for Preston, which gives the extent to which rates are relieved per £1 from the profits of municipal trading concerns. Discomfited in a recent attempt to extract sustenance from Mr. Carter's facts, the League retnrns to the charge, announcing that it has "discovered another (?) way of showing how municipal trading and profit-making raises rates," namely, "to compare the rates levied some years back in certain towns with those levied now." Mr. Carter's return gives ten towns which, from their municipal profits, derive relief to the extent of 1s. and upwards in the £. The League writer takes the rates in these towns (with one exception, where comparative figures are not available), compares them with the rates in 1898 9, finds that there has been a considerable rise, and on this unsubstantial basis jumps to the conclusion that he has "established the proposition that mnnicipal trading and profit-making raise rates, and that just in proportion as profits rise, so do rates."

Let us again test the reasoning powers of the League in a very simple way. In the nine towns which derive 1s. and upwards relief, I accept the League's figures. In the case of the 15 towns in the returns which have no municipal profits, and which, therefore, if the League's logic is correct, should have at least a smaller increase in rates, I have only the figures for 1899-1900. But as rates have been steadily rising for years, this will rather give an advantage to the League. Comparative fignres are again not available in two cases—Kensington and Westminster. In the nine towns, then, which derive 1s. and more relief, on an average rates have risen in the six financial years 1898 9 to 1903-4 almost exactly 9d. in the £. In the 13 towns which have no mnnicipal trading profits, rates, for the five financial years 1899-1900 to 1903 4, have risen on an average exactly 1s. 0¼d. The correct inference to be drawn from the Preston retnrn therefore is that rates are increasing more rapidly in towns making no profits from their municipal enterprises than in towns making large profits. Perhaps the Liberty and Property Defence Leagne will again try its hand at wielding Mr. Carter's boomerang, or we may even have the pleasure of seeing Mr. M'Dougall re-emerge from his tent.—I am, &c.,

F. A. B.

THE ORIGIN OF MUNICIPALITIES.*

Some of the Many Useful Lessons to be Learned from the Study of English Local Government in Embryo. The Disintegration of Roman Municipal Government and the Rise of the Feudal System. Old Copyhold and other Manorial Tenants. Days when Churches were the only Municipal Enterprises. The Formation of Boards of Guardians.

[By MR. EDWARD R. PICKMERE, M.A., Town Clerk of Liverpool.]

IF we desire to inquire closely into the origin of local government, as it is now called, to distinguish it from government by the King and Parliament, we ought to examine into the municipal institntions of the Romans, the Germans, and the Franks. We have abundant evidence existing at the present day that the Romans founded cities in England, and a chronicler of the fourteenth century says that among the Britons were formerly 92 cities, of which 33 were more celebrated and conspicuous. The Roman governors endeavonred to persuade the British to congregate in towns, and exhorted them to build houses, temples, and market places, and as the government of Rome was essentially municipal, there is very little donbt but that these cities were governed by municipal officers either chosen by the people or placed over them by the procurator.

Early Local Administration.

Our knowledge of the habits, customs, and local institutions of the German tribes is derived from Cæsar and Tacitus. Cæsar writes of these tribes as being nomadic. When Tacitus wrote of them a century and a half later they had settled in villages and were divided into two classes—the freedmen (liberti) and the servile classes (servi). Three of these tribes, viz., the Saxons, Angles, and Jutes, became nltimately the invaders and conquerors of Britain, and as the power of the Romans declined and Britain became less subject to Roman rule, so did also the form of municipal government established by the Romans fall to pieces. It has been said that Britain, although occupied by the Romans, had never become Roman, and whatever amount of union existed between the two populations ended when the legions were withdrawn. The manner in which the Anglo-Saxon race became settled in Britain forms no part of this lecture. It is sufficient for our purpose to know that historians generally agree that Roman culture, Roman Christianity, and Roman rule became extinct in Britain, and there was nothing of Rome left but the mere shell of civilisation in the form of ruined churches, ruined cities, the rnined villas of the Roman nobles, and the large public works, such as roads and fortifications, of many of which we have traces at the present day. In place of the Roman institutions framed on Imperial lines, the Anglo-Saxons established their national primitive customs. The family was the first unit; each family had its hide of land. Ten families formed a tithing, a hundred families formed the hnndred. Each tithing or hundred had its folk-land, *i.e.*, land held in common. A still larger division, including several hundreds, was the Scir or Shire. The township derived its name from the "tnn" or hedge by which it was enclosed. The affairs of the township were managed by an assembly of freemen, called a gemot, whose functions were administrative, and not judicial, *i.e.*, the gemot made bye-laws, but questions of law were decided by the hundred court.

Subversion of Democratic Rule.

After the Conquest the Normans gave the township the name of "Vill." For some years under the Normans the township appears to have retained its ancient privileges, bnt when the powerful Barons had once become settled, and the feudal system held full sway, we find that the manor had interfered with, and to a great extent taken, the place of the democratic form of government in the township. The manor (probably derived from the Latin word "manere," "to remain") was a large tract of land comprising a township, or it might be several townships, in which the tenants, freemen or not, held their lands under a superior lord, who in turn held it under the Crown. These tenants, who cultivated the lords' lands, and who were called "villeins," afterwards became the copyholders, and their lands are now called copyhold lands. As many of you know, the services of a tenant of copyhold land are not now very onerous, and principally consist in the payment of certain fines, fees, and costs payable to the Lord of the Manor and his steward when the property changes hands. Although the old copyhold and other manorial tenants had the advantage of being under the protection of a powerful lord in case of war (civil or otherwise) their ancient rights and privileges (especially those of local self-government in their townships) were to a large extent curtailed by the manorial Courts of the superior lord, who (subject, of course, to the service he had to render to the Crown) was the lord of all he surveyed within his own manorial jurisdiction.

The Rise of the Parish.

We now arrive at another division of local government administration, viz., that of the parish, which was at first a purely ecclesiastical division, but which afterwards, under the fostering care of the parish priest, assumed the powers formerly held by the old assembly of the township, such powers having fallen into disuse nnder the manorial system. If a township had a church and priest it formed a parish. Otherwise the parish comprised many townships. We have instances of this in Liverpool, the parishes of Liverpool and Toxteth comprising in each case one township, while the parish of West Derby comprises five townships, viz., West Derby, Kirkdale, Wavertree, Walton, and Everton. The parish meeting played a most important part in local government, and in proportion as the manorial courts became of less importance, owing to the decline in power of the Barons and the freedom of the serfs, so did the parish meeting develop in importance and become as it were a parliament for the administration of local affairs, snmmoned and presided over by the parish priest, and held at first in the Church and afterwards in the vestry. Primarily, therefore, the parish meetings were meetings for Chnrch purposes, bnt as I have shown they became the authority for the management to a very large extent of the secular affairs of the parish, and by the Act of Eliz., c. 2. the relief of the poor, which had hitherto been considered a religions dnty, performed by the monasteries, was, after the abolition of these religious honses, given to the parishes. Although the parish meeting is one of onr most ancient institutions, its dnties have only been defined by Parliament as recently as 1894. By the Local Government Act, 1894, the parish comes once more into prominence as a unit of local government, after having been shorn to a great extent of its former importance. In 1834 the duty of relieving the poor was taken from the parish and given to boards of gnardians.

Business of the Hundred.

Before leaving the subject of the townships, the Anglo-Saxons, as I have already mentioned, united a number of townships into what was known as the hundred, or wapentake, for the purpose of judicial administration and police. The bnsiness of the hundred was transacted in a court called the hnndred court or wapentake court, which was attended by the great lords or their stewards and by representatives from the townships. After the appointment of justices of the peace in the reign of Edward III., most of the hnndred courts fell into disuse, and their police jurisdiction was nltimately abolished. The scir, or shire, contained a number of hundreds, and had its own Court, which was governed by the Ealderman as its military chief, and by a gerefa, shire-reeve, or sheriff, who collected the Government and local taxes, and was the judicial president. The shire is the modern county.

We will now revert to the Anglo-Saxon period of onr history, when we find the borough Anglo-Saxon "burh" co-existent with the "tun" or township. As I have already explained, the "tnn" was the fenced-in homestead of the agriculturist. The "burh" was the fortified residence of some great noble, the word "burh" meaning a fortified place. One can well imagine that in times of wars or rumonrs of wars men would naturally congregate for mutual protection. A walled demesne afforded safety and a better means of repelling warlike attacks than a mere village snrrounded by a hedge. In the course of time the "burh" became the centre of trade and commerce, and obtained various privileges by charters granted by the great lords or the King, but the Anglo-Saxon burh was originally nothing more than a township or a combination of townships better organised for protection and trade.

The City as a Distinct Unity.

At the time of the Norman Conquest the towns had certain privileges with regard to taxation, and the Court Moot of the towns took the place of the hundred conrt in many instances; but there was no trace at that time of the civic constitution which obtained at a later period. The Charter which Henry I. granted to London was the first real recognition of the importance of the towns. By this Charter the City became a distinct unity and independent of the government of the larger county, and the citizens were empowered to elect their own officers. But the Charter did not alter the mode of government which continued, as heretofore in the moots or courts. With regard to the provincial towns, the existence of which is recognised in Domesday Book, their constitution remained unchanged by the Norman Conquest, but instead of being independent they were held in demesne by the lords or by the king. During the Plantagenet period the towns increased very rapidly in importance. Nearly all the principal towns were the property of the Crown, and many of them had received Royal Charters, which placed them in the position of free boroughs. The great increase in the number and importance of the trade gnilds during this period of history had also strengthened the position of the towns in which trade and commerce was carried on.

Influence of Trade Guilds.

The guilds, which were of ancient origin and originally of a religious nature, afterwards became of a more extended character, and the merchant gnilds probably existed at the time of the Norman Conqnest They are mentioned in Charters granted in the reign of Edward I. They were powerful organisations, in the nature of close trading societies, and regulated not only the mannfacture, bnt also the bnying and selling of articles of commerce. No one could carry on a trade to which he had not been duly apprenticed. No one could make an article except of a prescribed size or quality, and every trade article must be sold at the price fixed by the guild. They were trade protection societies of a formidable character, and could be used effectnally either for protection or oppression. In addition to, and co-existent with, the merchant guilds, there were the craft guilds, which may be described as societies of tradesmen, such as weavers, shoemakers, &c., in the smaller towns. We have experienced the influence which can be brought to bear npon local affairs by the trades unions of the present day, and it can, therefore, be well imagined that the old gnilds, which were recognised by royal charters, held lands, were empowered to make their own regulations, and whose members became the freemen of the old boroughs, would become invested with enormous power and influence, and, by bringing within their jurisdiction all the wealthy and important men of the towns, wonld soon absorb all the offices of pnblic importance, and the gnildhall would, and, in matter of fact, did, become the town hall of the borongh, in which not only the trade bnt the municipal business of the town was conducted.

(To be Continued.)

* A lecture delivered at the Liverpool University.

OFFICIAL & PERSONAL.

BOROUGH OFFICERS UNBENT.

DEPTFORD BOROUGH COUNCIL OFFICERS' CLUB DINNER.

THE municipal officers of "distinguished, dauntless, Deptford" spent a very pleasant evening on Saturday on the occasion of the third annual dinner of the Borough Council Officers' Club, held at the Bridge House Hotel, the town clerk of Deptford (Mr. Vivian Orchard) presiding. The company, numbering close upon eighty, included his Worship the Mayor of Deptford (Mr. J. Arthur Pyne, J.P.), Councillor B. J. Jacobs (first Mayor of the borough), Mr. W. A. Schultz, F.C.A. (last year's Mayor), medical officer of health (Dr. H. W. Roberts), borough surveyor (Mr. T. Corfield), borough accountant (Mr. T. E. Charles), deputy town clerk (Mr. Arthur Purkis), borough analyst (Mr. R. H. Harland), hon. secretary (Mr. W. Banks), Mr. G. Willis, Aldermen B. T. Hall, Mr. H. Marshall, Councillors Simmonds, W. V. Yonge, W. Wood, Stoneham, Walton, and R. Soper, Messrs. W. S. Morley, Shingler, Warcup, Stone, Ruddle, Lyon, Rudkin, Coker, Gilbert, Danson, Priest, Nettleton, Owner, Tredray, Russell, Monger, Barnard, Turner, Black, Hosking, Gard, Gray, Wright, Lear, Talbot, Lenner, Reed, Privett, Shelley, Harrison, Carter, Wheatley, Jones, Elliot, E. Stables, Redman (2), Hilton, Walpole, Bamfield, Winter, Davis, Swamson, Doyle, Simon, Rose, Wann, &c.

In proposing the toast, "The Borough of Deptford," the chairman said that the borough in the past had been much maligned by the use of a qualifying adjective; there was no necessity or reason to mention it, but it no doubt originated as the result of the alliterative turn of a mind of some person who probably knew nothing of the actual circumstances. Deptford was, however, living down the false aspersion—thanks to the good and beneficial work of the Borough Council, whose members did not take office for advantage to themselves, but for the purpose of serving their fellow-townsmen honestly, loyally, and faithfully. At their hands works had already been carried out, others were in hand, and still more were to follow, which would all improve the borough, and prove to be to its advantage and for the good of the inhabitants. The members of the Council were hard-headed business men, who had but one ideal, and that the good of the borough. There could be no doubt that they would succeed with their projects, and if the alliteration was to be continued they would soon know the borough—not under its present misnomer, but as "Distinguished, dauntless Deptford." (Applause.) It was a good thing for municipal life that it should be able to enlist the sympathies of men like the mayor, who had a large stake in the borough. (Applause.)

In the course of his reply the Mayor said he was glad to see the good feeling existing among the employees of the Council, and he believed he might say the same of the members of the Council themselves.

"The Deptford Borough Council Officers" was proposed by Councillor W. Wood, and responded to by Mr. Bank, who mentioned that the club had 43 members, and although there had been very heavy expense there was a balance in hand.

Other toasts followed.

A capital programme of music, &c., was sustained by Messrs. T. E. Charles and E. C. Seare (at the piano), A. Purkis, T. Lyons, G. Hosking, F. S. Cutler, H. N. Rose, J. Owner, Wilfred C. Simons, T. Edgar and Charles Conyers (whose ventriloquial sketch won marked approval). During the evening the chairman sent a congratulatory message to the Southwark Borough Council Officers' Club, who happened to be dining in the room above, to the effect that it was hoped by the Deptford officers that they were spending an enjoyable time. The reply was that in their "more elevated sphere" they were indeed doing that. The rejoinder was provocative of much merriment.

GLASGOW TOWN CLERKSHIP.

FOURTEEN applications have been sent in, as follows:—

A. W. Myles, County Clerk, Forfar.
Arnold H. Miller, Town Clerk, Norwich.
Jas. Robertson, Deputy Town Clerk, Edinburgh (since withdrawn).
Chas. S. Harden, solicitor, Belfast.
H. W. Poole, solicitor to the Urban District Council, Barnet, Herts.
James Muirhead, writer, Glasgow.
Lionel G. H. Smith, barrister, 53, Queen's Gardens, London.
Arthur B. Bryceson, Town Clerk, Woolwich.
R. M. Prescott, Town Clerk, Fulham, London.
Robert Lamond, LL.B., writer, Glasgow.
Harry W. Cook, clerk and solicitor to the Wallasey Urban District Council.
F. D. Askey, Town Clerk, Hornsey.
John Lindsay, Deputy Town Clerk, Glasgow.

CIVIC BANQUET AT YORK.

THE Lord Mayor of York (Alderman R. H. Vernon Wragge) gave his official banquet on Friday evening, when about 120 guests accepted his hospitality. The company included Lord Wenlock, the Dean of York, Lord Helmsley, Colonel the Hon. J. E. Lindley, Colonel Armytage, the Hon. F. S. Jackson, Mr. J. G. Butcher, M.P., Colonel Blackburn, C.R.E., Colonel Marling, V.C., Colonel H. D. Thorold, Colonel White, V.D., Colonel Anderson, V.D., Dr. Tempest Anderson, Judge Raikes, the Sheriff (Alderman Bentley), Major Shann, Captain Pearson, the city magistrates, and the aldermen and councillors.

BRADFORD ASSISTANT ELECTRICAL ENGINEER.

AT a meeting of the Bradford Electricity Committee, the number of candidates for the post of assistant electrical engineer was reduced to the following four:—Charles W. Salt, Croydon; J. R. Blaikie, Streatham; T. H. Birrell, Worcester; and R. M. Torpy, Wimbledon. The post is worth £250 a year, and the candidates originally exceeded 150.

L.C.C. MUSICAL SOCIETY.

ONE of the London County Council Musical Society's periodical smoking concerts was held on Monday evening at Caxton Hall, Westminster, when the deputy chairman of the Council (Mr. F. P. Alliston) occupied the chair. The orchestra and the choir disconrsed some first-class music, and the following artistes contributed to the pleasure of the evening:—Mr. Noel C. Farrow, Miss Lesley Everard, Mr. Gwilym Richards, Miss Minnie Chamberlain, Mr. John Warren, Mr. H. H. Bradfield, Mr. Harry Briden, and Mr. J. H. E. Rosier.

The musical director was Mr. Martyn Van Lennep, and the accompanists Messrs. Scott Birkbeck and C. A. Masey.

RECEPTION TO GOOD TEMPLAR METROPOLITAN MAYORS.

GOOD Templars from all parts of the metropolis and of Greater London foregathered in the Chelsea Town Hall in large numbers on Tuesday evening, on the invitation of the Middlesex District Lodge of the Order, to congratulate a number of their fellow members on the distinguished honour which has fallen to them of having been elected by their fellow councillors and aldermen to the position of mayor of their respective boroughs.

Six Good Templars—some of them of upwards of 30 years' membership in the Order, in which, as more than one of them admitted on Tuesday evening, they gained their training in the art of conducting public business—have achieved this distinction. Chelsea has elected Mr. James Jeffery, L.C.C.; Fulham, which every year since its creation as a borough has chosen as its chief magistrate a Good Templar, has this year placed Mr. R. W. Sayer in the position; in Battersea, Alderman West is the Mayor; in Southwark, the Rev. A. W. Jephson, M.A., L.C.C.; in Hackney, Mr. Tom Hosgood; and in St. Pancras, Alderman Purchese. With the exception of the Rev. A. W. Jephson, all these gentlemen were present.

Pressure of other engagements kept away Alderman Vesey Strong, Senior Sheriff of the City of London; and Mr. J. Williams Benn, M.P., chairman, and Mr. Edwin A. Cornwell, vice-chairman, of the London Council, all three of whom are also Good Templars of some years' standing.

After an hour and a half spent in listening to a programme of instrumental and vocal music, light refreshments were served, prior to the formal speech-making, which was presided over by Mr. John Southam, District Chief Templar of Middlesex, who is also a councillor of St. Pancras, and who heartily congratulated the several Mayors present on the honour bestowed on them by their colleagues as representatives of the public in their respective localities.

HOLBORN TOWN CLERKSHIP.
Dismissal of Mr. H. C. Jones.

AT Wednesday night's meeting of the Holborn Borough Council, held under the presidency of Mr. Fitz-Roy Doll, the mayor, the special committee appointed to inquire into matters relating to the prosecution of Mr. Henry C. Jones for his admitted misappropriation of the Council's property brought up a report recommending that Mr. Jones be removed from his office of town clerk as from January 25 last, and that his employment as solicitor to the Council be terminated as on and from the same date.

Professor Smith, the chairman of the committee, in moving the adoption of the recommendation, said it was the unanimous conclusion of the committee. The Council at a previous meeting suspended Mr. Jones from office. The matter of the defalcations was then brought before them for the first time, and some doubt existed as to the proper procedure which should be adopted. On that very day Mr. Jones admitted the serious defalcations of which they were now aware. But it had since come to the knowledge of the committee that there were matters extending over many years which would have to be added to the original charge.

The Mayor reminded the Council that there was medical evidence to the effect that, at the time Mr. Jones confessed his guilt, he appeared to be suffering from hallucination. Mr. E. L. Pyke said that the Council knew at any rate that the money had been stolen. Even assuming that Mr. Jones, after he had confessed his guilt, were acquitted, it was not likely that his employment as town clerk would be continued. Another councillor expressed the opinion that, in view of the medical evidence at the police-court, it would be unwise at the present time to dismiss Mr. Jones.

Professor Smith said that the matter was perfectly clear. Mr. Jones admitted that he had robbed the Council, and they should deal with him in the way that they would deal with one of their own servants who had admitted theft. If they were to justify their position as a Council in the municipal life of London, they had no alternative but to dismiss him.

The recommendation was adopted.

Alderman Rawlins, K.C., said the special committee was considering the question of what alterations should be made in the present system with regard to the sealing of documents and the like, and would present a report in due course.

It was decided that in the meantime all documents should be sealed at the Council meeting, and that the mayor should sign them.

WARRINGTON OFFICIALS' SALARIES.

ON Wednesday the Warrington Town Council decided to raise the salaries of a number of its officials as follows:—Assistant overseer (Mr. W. H. Woodcock), from £100 to £200 by annual increments of £25 (Mr. Woodcock receives £250 as borough collector and assistant treasurer); and electrical engineer (Mr. F. V. L. Matthias), from £250 to £300. Increases in salaries were decided upon to the assistant director of education and two clerks. Applications for increases by the tramways manager (Mr. Telfer) and assistant electrical engineer (Mr. Purse) were not allowed.

MEDICAL RELIEF.

Are the Facilities Given to the Poor to Obtain Medical Relief Sufficient? The Writer of this Article Holds that our Present Methods are a Menace to the Public Health. What Happens on the Outbreak of a Disease. Great Loss of Life and of Money. Questions for the Forthcoming Guardians' Elections.

[By J. THEODORE DODD, M.A., Councillor and Guardian.]

A SHORT time ago the writer in this journal upon the "Poor Law Outlook" expressed an opinion in favour of hearty co-operation between the sanitary authorities in towns and the gnardians of the poor. I cordially agree with this opinion, and, indeed, believe that unless such co-operation can be secured, there will shortly arise a strong movement for the abolition of the guardians and the establishment of committees of the town councils to carry on the duties of poor relief.

The Attitude of the Town and Borough Councils as to Disease.

Throughout a great part of England and Wales there will be, in a few weeks, an election of guardians. It is, therefore, a suitable time for pointing out the enormons disadvantages to the public of electing guardians who, instead of considering carefully what they can do lawfully to aid the sanitary authorities in their work of maintaining and improving the pnblic health, think their chief duty is to reduce pauperism. Let me take an example of the clashing of the ideas of a certain school of Poor Law "reformers" with the principles of public health as held by the councils.

There is no disease which the sanitary authority (whether borough or county council in London or town council in the provinces) dreads more deeply or takes more trouble to avoid than smallpox. Enormous sums are spent by the ratepayers on vaccination, vast sums on isolation hospitals, and when the epidemic does fall on a town the loss to tradesmen and others is often rninous.

Smallpox and the Stolen Horse.

Now, why is it that smallpox spreads? As soon as a case is detected it is hurried off by the sanitary authority to the hospital. The doctor will be called up at midnight to diagnose the case, and the sanitary inspector will, in the early dawn, disinfect the house whence the patient comes, and all who are in it. Those who have been living with the smallpox patient are styled "contacts," and will also be isolated and fed at the expense of the council. Clothing, bedding, &c., will be burned, and the owners, if necessary, recouped by the council. Sometimes money will be paid to the "contacts," to compensate for loss of wages. Yet, after all, these precautions often come too late; the patient has not applied to the doctor till ten or twelve days have gone by, and the smallpox has spread to others, who will again hand it on further and further.

In an official report of a recent ontbreak at Glasgow it was stated that attacks were originally often very mild, and the disease escaped recognition. Sometimes it was taken for chicken-pox or for a bilious attack. In the majority of cases in one district no medical attendance was sought; often there was no definite illness; sometimes indisposition to eat or biliousness, and a few pimples.

How Thousands of Lives might be Saved.

Dr. Sykes, the medical officer of health for St. Pancras, in his report dated December, 1901, says, "Persons having the disease very mildly are extremely dangerous in spreading the disease widely," and he suggests that "through the Press or by notices the public may be exhorted to seek medical opinion as to their rashes and ailments, however slight, not only for their own sakes, but also for the protection of their families and households." Of course, the mild case may give the disease to a person who may have the disease badly.

Horrible as smallpox is, the deaths from it are the merest fraction compared with those from either scarlet fever, measles, or whooping cough. Scarlet fever is largely spread by the mild case, so is diphtheria. Most of the deaths from measles could be prevented if the doctor were called in soon enough and his advice followed. In consequence of these infectious diseases there is great loss of life, permanent damage to health, large expense, including money thrown away by the necessary closing of schools. In all these diseases the danger arises from the "unrecognised" or unattended case. Now, the only way to check these diseases is to encourage the patients, or in the case of children the sick children's parents, to apply for the doctor as soon as they begin to be ill in any way that is likely to be infectious disease; and, indeed, to facilitate medical attendance in all cases of illness. The town councils would be thankful if this could be done. Moreover, most councils in large towns are busy doing their utmost to check infantile mortality. Some issue leaflets telling parents to call in the doctor at once if the child does not thrive. If this were done, thonsands of lives might be saved. It should be remembered, however, that in ordinary cases it is not within the power of a town council to provide medical attendance for the poor in their own homes. That is the work of the board of guardians.

The Attitude of Boards of Guardians as to Disease.

Now, how do guardians assist in this work? One "Oxford Don," who had been himself a gnardian, recently lecturing at Birmingham, expressed the view of not a few when he said, "Medical relief is a growing evil." In St. Pancras, which had, at the smallpox epidemic of 1901, the unenviable position of being the London borough where "the first considerable extension of the disease took place" (report of London County Council), the board of guardians had actually been engaged in reducing the numbers to whom medical relief were given. "By merely insisting on applicants for medical orders attending before the Relief Committee of the South district their numbers went down from 4,246 on the 31st December, 1899, to 2,280 on the same day in 1901—a reduction of 46 per cent. in two years only" ("Decade of London Panperism," p. 21). At the Poor Law Conference held at Oxford in May, 1903, Sir W. Chance said this decrease of medical relief was still going on.

In a large number of unions the guardians have endeavoured to reduce medical relief by making the applicant a debtor in the first instance. In some unions he has to come before the Board also, and then sometimes he is released from the debt, and sometimes he is told that he must pay. Then follow worrying by the relieving officer, "lawyer's letters" from the clerk, and occasionally legal proceedings. In some unions the relieving officer is paid a percentage on the amount he recovers. In one union his "commission" is 20 per cent. What wonder is it if a hard-worked father, with low wages and a large family, lets his child, with sore throat, measles, or chicken-pox, which is sometimes really smallpox, wait a few days rather than be himself plunged into debt and ordered before the Board? It should be clearly nnderstood that a large number of unions have adopted various methods of "deterring" the poor from applying for medical relief; and the "invited" speakers at the conference have also urged guardians to adopt snch methods. Sir W. Chance says "there is no kind of relief that requires so much 'watchfulness' (*sic*) as medical relief."

The Remedies.

Apart from the needlessly drastic measure of abolition of the boards of guardians (which, for many reasons, I should regret), there are several remedies that can, without any legislation, be applied at once.

(1) In the elections which are about to take place let candidates be selected who will pledge themselves to oppose these attempts to cnt down medical relief—especially to children—by making all medical relief a loan in the first instance, or by any other plan likely to prejudice the pnblic health. Many of the retiring guardians will readily agree to this if only the facts are placed fairly before them.

(2) Let the town councils or their sanitary committees ask the medical officer of health to consider and report on the facilities given by the guardians to the poor to obtain medical relief and the obstacles put in the way.

(3) Let some members of the town council seek election on the board of guardians with the view of improving public health and diminishing infantile mortality.

(4) Let the Local Government Board issue a circular to the guardians on these subjects, and also discourage the system of paying the relieving officer for collecting the loans by a percentage.

In this article I have only discussed one particular point in which the guardians may help or hinder the public health. There are many others. There are also not a few ways in which the town councils may increase or reduce that poverty which leads to panperism. If your space permits, I should be glad to treat on these subjects on another occasion

ST. PANCRAS BYE-ELECTION.

A WALK OVER.

MR. A. J. MUNDELLA, the well-known educationist, has just been returned unopposed to the St. Pancras Borongh Council. The vacancy occurred in Ward 5, which comprises the Mornington, Regent's Park, and Euston polling districts. Mr. Mnndella stood as a "Liberal," and now enjoys the distinction of being the only avowedly political mnnicipal representative on a London authority.

Mr. Mundella, however, received the snpport of the Progressive party in West St Pancras, and was able to point to the large volume of useful work that has been accomplished by the "forwards" since the reactionaries were defeated. In his election address Mr. Mnndella effectively summarised the Progressive achievements on the Borough Council:—

"An efficient system of finance is established, the large floating debt paid off, and the rate not increased. Large blocks of working-class dwellings have been opened, and hundreds of deadly undergronnd dwellings closed. Some valuable open spaces have been secured, and the widening of several streets, especially Hampstead Road—long projected and long delayed—is now in hand. A fair-wage clause has been inserted in contracts; trade nnion rates and conditions adopted; direct employment extended.

"Prompt and practical steps have been taken to relieve the distress arising from lack of employment during the winter. The Free Libraries Act has been adopted. The baths have been made more popular and the receipts have increased. A gymnasium is being established. Disorderly houses have been suppressed. The electricity service has made splendid progress; the price to consumers is now the lowest in London, and the profits to the ratepayers show an increase every year."

The borough is in the fortunate position of just having had an offer of £40,000 from Sir Andrew Carnegie for the erection of free libraries. The proposal is to establish a central library and four branch libraries, and the offer is made on the condition that the Council levy a penny rate, and that sites be provided independent of the penny rate or the £40,000. It is suggested that one library should be erected in each of the four Parliamentary Divisions. The whole matter will come before the Borough Council on the 22nd inst.

THE Borough of East Ham, at the monthly meeting just held, accepted the tender of Messrs. Meldrum Brothers, Limited, of Timperley, for the erection of six of the firm's patent "Simplex" regenerator cells, at the sewage works.

NOTES AND ANSWERS.

Borough Councils Possess no Power to Alter the Boundaries of an Inclosed or Partly Inclosed Union or Parish. What may be Done by the L.G.B. Further Points as Regards the Disqualification of "Interested" Councillors. Severing of Outlying Parts of Parishes.

626.—**POOR LAW—Alteration of Union Boundaries so as to Make the Borough and the Union Coincide.**—I shall be obliged for your opinion and guidance on the following questions in connection with the Poor Law arrangements affecting this borough. The facts are these. At the present time, for Poor Law purposes, the borough is connected with the X—— Union, and accordingly elects a number of representatives to the board of guardians for that union:—

(1) What steps would it be necessary for the borough council to take as at present constituted to secure severance from the union, in order that the borough might become its own Poor Law authority?

(2) In the event of the borough being created a county borough, would this course effect, as a sequence, severance from the union for Poor Law purposes? and

(3) In either case would the borough council administer the Poor Law Acts, or would a board of guardians, as a distinct body, have to be elected by the burgesses, and, as such, have to act independently of the borough council for Poor Law purposes?—"V. B."

(1) The borough council has no power to alter the boundaries of the union or any parish therein, even though part of the union may be included in the area of the borough. The council may, however, petition the county council in the matter, and the latter body is empowered by Sec. 57 of the Local Government Act, 1888, to make an order altering the boundary of any parish, or for uniting any parish or parishes with any other parish or parishes. The alteration of the parish will involve the alteration of the boundaries of the union comprising such parish or parishes, for part of a parish cannot be in one union and part in another. The Order of the county council is subject to confirmation, modification, or rejection by the Local Government Board.

(2) If the borough should be raised to the rank of a county borough, its council will be able to exercise the power of a county council, as above set out; but, in the absence of any order made and confirmed, as above indicated, the alteration in the status of the borough will not in any way affect the union boundaries.

(3) The borough council would not, under any circumstances, administer the Poor Law. In several cases borough and union areas coincide, but, nevertheless, the borough council and the board of guardians continue to be perfectly distinct and separate authorities, independent of each other.

It will be seen that any alteration of union areas effected as above would be incidental to the exercise of the power of dealing with parish boundaries, and that, in any event, the confirming authority of the L.G.B. is required. Subject to this exception, the only body authorised to alter union areas is the L. G. B. Under the Act 4 and 5 Wm. 4, c. 76, Sec. 32, as amended by 7 and 8 Vic., c. 101, Sec. 66, the central authority may separate any parish or parishes from any union, and may dissolve or otherwise alter the boundaries of such union. We may add that, in practice, substantial alterations of unions are not very frequent, and that where an attempt is made to separate from a poor union, or parish, containing a residential population, with a high rateable value (which proceeding may possibly be contemplated in the case submitted by our correspondent), the proposal usually ends in failure.

627.—**CONTRACTS BETWEEN COUNCILLOR AND CORPORATION—Disqualification for Office by Reason of Interest in Contract.**—Verbal negotiations were entered into between the general manager of the tramways and A as to the feeding of some horses. Subsequently an agreement was reported to a meeting of the Tramways Committee, and the following resolution adopted:—"Resolution accepting the offer of A for temporary stabling of horses required for the tower waggons, &c., at £1 per week, and 12s. per week for the keep of each horse, one month's notice to terminate the arrangement." In reply to a letter from the general manager informing him of this resolution, A wrote as follows:—

In reply to your letter of this morning (*re* keep your 12 horses, and also the stabling for same), I agree to the following terms as mentioned in your letter of this day's date, viz., letting the stable, £1 per week; keep of each horse, 12s. per week. I also agree to the tenancy to be terminable upon one month's notice from either party. I also agree to allow you to store a tower waggon in the yard.—A.

This agreement was not stamped, nor was it under the seal of the Corporation. Later, A wrote asking for an increased payment for feeding the horses, and the minutes record that the Tramways Committee then agreed to pay 12s. 9d. per horse. This agreement is not again referred to in the minutes of the Tramways Committee until more than 12 months later (after A had been elected a councillor), when the following letter from A to one of the councillors appears to have been read:—

Dear Sir,—I saw the town clerk last night, and he said it was perfectly legal for the Corporation to rent land and buildings from a councillor, but the feeding of the horses is not legal. So I shall be glad if you will make arrangements for feeding the horses at an early date, and we will keep supplying until such arrangements are made.—Yours faithfully, A.

The following appears in the minutes of the tramways committee after the date of this letter, and appears to have been stamped:—

"November 16th, 1904.
To the Chairman and Members of the
—— Tramways Committee.

Gentlemen,—We hereby undertake to feed all your horses stabled at A's stables upon the same terms, namely, 12s. 9d. per horse, and under the same conditions upon which they have up to now been fed by A, and that such arrangement shall come into force at once.

Witness, M. H.

The above are the whole of the official records dealing with the subject referred to in the minutes of the —— corporation. It now appears that A had formed his business into a limited liability company (subsequently to his entering into the contract), the shareholders of which are exclusively members of his own family, with himself as managing director for life, with power to appoint if he so desires, other director or directors, assign their duties, fix their salaries, and discharge them. In January, 1904, the following printed circular was addressed to the town clerk:—

Dear Sir,—Kindly note that, for family reasons, we have formed our business into a limited liability company. There has been no public issue. The management will be continued exactly as heretofore, and we trust to have the same pleasant business connections with you in the future that we have had in the past. The style of the firm is now:

A. and Co.

This circular was passed on to the borough treasurer, who forwarded notices to the Gas, Water, and Electricity Departments for their information in making up their account. It never reached the Tramways Committee, and they were unaware of its existence. From February, 1904, the invoices for feeding the horses were sent in on the old forms, upon which the name of the new company had been stamped with a rubber stamp, and were paid, though inquiries show that the payment was due to the mistaken and unauthorised act of a clerk in the borough treasurer's office.

Does the payment of the money, under the circumstances recited, constitute a novation of the agreement?

This was practically the state of affairs in October, 1904, when A was nominated a candidate for the ——borough council, and elected on November 1, 1904. This arrangement remained so until the 16th November, when he wrote the letter quoted. I shall, therefore, be glad if, after considering the above, you will kindly give your opinion of A's present legal position as a councillor, together with replies to the appended queries, in your legal columns?

(1) Does the payment of the accounts by the corporation to the limited company of itself transfer the contract or agreement to the company without formal notice having been given, in accordance with the Tramways Committee's resolution and A's letter of acceptance.

(2) Was a novation of the agreement or contract necessary? If so, would A's printed circular, quoted above, notifying the transferring of his business into a limited liability company be sufficient to constitute a novation in the absence of any resolution to that effect?

(3) On the facts as stated, are you of opinion that A retained a disqualifying interest in the agreement to feed the corporation's horses at the time of his nomination and election?

(4) If disqualified from being nominated and elected a councillor, how long after being declared elected does a councillor remain disqualified from acting and voting?

(5) Having been declared by the returning officer to be duly elected, though not qualified to be elected, and no protest made or petition presented against the election, does a councillor therefore become entitled to act and vote free from all penalties, in the same manner as if he were qualified to be elected?

(6) If a councillor resigns his disqualifying interest in a contract some 14 days after election, does he thereupon cease to be liable for future penalties for acting in a corporate office without being qualified to be elected at the time of election?

(7) If A is still disqualified, what action can be taken to secure either his withdrawal from the council or the recovery of penalties?—"INQUIRER."

It seems to us that the original agreement between A and the corporation was not a valid and binding contract, inasmuch as it was not stamped, and was not passed under the seal of the corporation. Moneys paid under the agreement, however, for work done, cannot be recovered by the corporation.

(1) The payment by the corporation of the accounts rendered by the company, in place of A, to the corporation under the circumstances indicated, cannot transfer the agreement or its benefits to the company, inasmuch as such agreement did not originally constitute a binding contract.

(2) It seems to us that strictly a new agreement was required as between the company and the corporation, and that this should have been under the corporate seal.

(3) The company formed by A was a legally constituted company ("Salamons v. Salamons"), even though it comprised only the members of his own family, and provided for the continuance of his own predominating influence in the concern. Sec. 12 of the Municipal Corporations Act, 1882, after providing that interest, direct or indirect, in a contract with the corporation will disqualify a councillor from office, lays down certain exceptions. One of these is to the effect that a councillor shall not be so disqualified by reason of his having a share or interest in any company incorporated under the Companies Act, 1862. A would not, therefore, in strict law, appear to be disqualified for being elected or sitting as a councillor, seeing that his business was converted into a limited company previous to his nomination as a councillor.

(4) If a councillor were disqualified in this way, such disqualification would cease when his pecuniary interest in the contract had ceased—in other words, when the contract had been performed and the consideration money paid.

(5, 6, and 7) Anyone—councillor or other person—who acts in a corporate office without being qualified, or after ceasing to be qualified, is liable to a penalty of £50 for each offence, recoverable by action. (M. C. Act, 1882, s. 41.) Such penalty may not be brought except by a burgess, and shall not lie unless the plaintiff has, within 14 days after the cause of action arose, served a notice in writing on the offending councillor of his intention to bring the action, nor unless the action is commenced within three months after the cause of action arose (*ibid.*, Sec. 224).

It should be added that A is precluded from voting or taking part in the discussion of any matter in which he has a pecuniary interest.

Though A (in our view) is not technically disqualified for acting as a councillor, it seems

clear that as he has in reality a substantial interest in an important contract with the council, he comes within the sense, though not within the formal language, of the disqualifying provisions of the Municipal Corporations Act.

628.—**AREA OF PARISH NOT INCLUDED IN SEWAGE SYSTEM—Are Occupiers of Houses therein Liable to Rate Levied to Maintain such System?**—My house is situated outside the village, but within the parish of Q. The parish is included in a rural district, and recently the council of the district established a sewerage system in the village, but did not extend it to the hilly area of the parish outside the village. The cost of the maintenance of such system is, of course, a special expense, and is not chargeable to the district at large. Am I liable to pay the rate demanded so far as it is intended to cover the cost of the sewerage system? I contend that being outside the village, and my house not being served by the sewerage system, I am not legally bound to pay the rent. Is this view right?—"JUSTICE."

Our correspondent cannot, apparently, lawfully refuse to pay the rate in respect of the sewage system, though his house is not served by it. It would not be competent for the council to impose the rate on part only of the parish. Under Sec. 277 of the Public Health Act, 1875, however, the council may, by resolution, to be approved by the Local Government Board, "constitute any portion of the area within their jurisdiction a special drainage district for the purpose of charging thereon exclusively the expenses of works of sewerage, water supply, or of other works" which may be declared to be special expenses, and thereupon such area shall become a separate contributory place. If, therefore, the rural authority can be persuaded to take action in the matter, and the approval of the L. G. B. be obtained, a special drainage district might be formed, to include the part of the parish served by the sewerage system, and the cost of maintaining such system may then be charged on that area. It may be pointed out that—in theory, at all events—it is the duty of the council to provide the necessary sewers for its district under Sec. 15 of the Public Health Act, 1875. That section provides that "every local authority. . . . shall cause to be made such sewers as may be necessary for effectually draining their district for the purposes of this Act." Complaint may be made to the L.G.B. under Sec. 299 of the Public Health Act, where a local authority has made default in providing its district with sufficient sewers, and that board may, if satisfied that the local authority is in default in the matter, take steps to have the duty carried out. It is, however, unlikely (we should say) that in a case such as that submitted the L.G.B. would compel the sewering of the outlying part of the parish where our correspondent's house is situate, having regard to the small number of houses which (as we gather) are in the locality, and to the apparent difficulty, owing to the hilly character of that part as compared with the village, of extending the existing sewerage system at a reasonable cost.

ELLAND ELECTRICITY SUPPLY.

GROWTH OF A SMALL UNDERTAKING.

ELLAND'S electricity and destructor works have now been in operation for a little over fifteen months, and no official balance-sheet has yet been presented for the public use. A few figures as to the progress of the little undertaking should be of interest. The town only comprises about 11,000 residents. When the electricity station was started in October, 1903, there were only 27 consumers, representing an equivalent of 2,191 eight-candle power lamps. During the next three months a dozen more consumers had been procured, bringing up the consumption to 2,853 eight-candle power lamps, with seven-horse power in motors. At the end of the year 1904 there were 97 consumers. The total units sold for the past twelve months (from January to December last) was 46,054.

Official Advertisements.

BOROUGH OF SOUTHEND-ON-SEA.

TO CHEMISTS, GROCERS, BAKERS, &c.

THE Corporation invite TENDERS for Supplying the Sanatorium with Chemists' and Druggists' Goods, Groceries, Bread, Butchers' Meat, Milk, Brandy, and Disinfectants, and other articles, for One Year, from the 31st March next.

Forms of tender may be obtained at my Office.

Sealed tenders, properly filled up and endorsed "Tender for Sanatorium," accompanied by samples as far as practicable, to be delivered at my Office on or before Wednesday, the 1st March.

The Corporation will not be bound to accept the lowest or any tender.

By order.

WILLIAM H. SNOW,
Town Clerk.

Southend-on-Sea.
7th February, 1905.

BOROUGH OF SOUTHEND-ON-SEA.

GENERAL STORES.

THE Corporation invite TENDERS for the SUPPLY of the following ARTICLES:—

Hay, Straw, and Provender.
Stoneware Pipes, Bends, Junctions, Gullies, &c.
Portland Cement, Lime, and Chalk.
Timber.
Iron Castings (Manhole Covers, Lamp Columns, &c.).
Iron, Steel, Lamps, Road Tools, and Ironmongery.
Pitch and Creosote Oil.
Tar, Oils, and Disinfectants.
Tar Paving and Tar Macadam.
Coal and Coke.
Flints, Bricks, Sand, Gravel, &c.
Guernsey Granite Macadam and Granite Macadam other than Guernsey.
Granite Kerb and Channel.
Saddlery.

Forms of tender may be obtained upon application to Mr. E. J. Elford, M.I.M.E., Borough Surveyor, Southend-on-Sea.

Tenders, endorsed "Yearly Contracts," to be delivered at my Office not later than 12 o'clock noon, on Thursday, the 2nd March.

The Corporation will not be bound to accept the lowest or any tender.

By order.

WILLIAM H. SNOW,
Town Clerk.

Town Clerk's Office,
Southend-on-Sea.
7th February, 1905.

CROYDON RURAL DISTRICT COUNCIL.

TO CONTRACTORS AND OTHERS.

THE Croydon Rural District Council invite TENDERS for the following:—

1. Broken Guernsey Granite.
2. Dug and Hand-picked Flints and Fine Gravel.
3. Cartage of Flints, Granite, and Gravel.
4. Hire of Horses and Carts for Scavenging and Highway Purposes.
5. Hire of Horses and Carts for General Carting.
6. Tar-paving.
7. Kerbing, Pitching, and Channelling.
8. Tools, Brooms, Manhole Covers, and Gully Gratings, &c.
9. Portland Cement.
10. Lime.
11. Stoneware Pipes, Gullies, &c.

Forms of tender, specifications, and conditions of contract can be obtained on application to the undersigned; and samples of the tools, &c., can be seen at the Vestry Hall, Mitcham, and any other particulars can be obtained by applying to the Surveyor, Town Hall, Croydon, or Vestry Hall, Mitcham.

Sealed tenders, endorsed "Tender for ——," must be delivered at the Clerk's Offices, Town Hall, Croydon, before 12 o'clock noon on Thursday, the 16th day of February, 1905.

The Council will not be bound to accept the lowest, the whole of, or any portion of any tender.

ERNEST JOHN GOWEN,
Clerk of the Council.

District Council Offices,
Town Hall, Croydon.
1st February, 1905.

Official Advertisements.

WIMBLEDON URBAN DISTRICT COUNCIL.

ANNUAL CONTRACTS.

THE above Council is prepared to receive TENDERS for the Execution, Supply, and Delivery during the year ending 31st March, 1906, of the following WORK, MATERIAL, &c., namely—

(i.) CLERK'S, (ii.) FREE LIBRARY, (iii.) SURVEYOR'S, (iv.) ACCOUNTANT'S, (v.) RECEIVER'S, (vi.) ELECTRICITY, and (vii.) SANITARY DEPARTMENTS:—

1. Stationery for each of these Departments.
2. Printing for each of these Departments.

Forms of specification and tender, with conditions, may be obtained from, and samples inspected, as follows, namely:—The Clerk's Department, at 12, Queen's Road; the Free Library, at that building in Hill Road; the Electricity Department, at the Electric Light Works, Durnsford Road; and as to the other Departments at the Council Offices, The Broadway, Wimbledon.

ENGINEER AND SURVEYOR'S DEPARTMENT.

1. Broken Granite.
2. Granite Kerbs and Quadrants.
3. Granite Cubes and Pitching.
4. Flints and Fine Binding Gravel.
5. Concrete, Gravel and Sand.
6. Iron Castings.
7. Brooms, Brushes, Baskets, Ropes, and Turnery.
8. Street Gullies and Drain Pipes.
9. Cement.
10. Lime.
11. Jute Cloth.
12. Household Sundries.
13. Tools.
14. Ironmongery.
15. Paints, Colours, and Varnish.
16. Timber in Bulk.
17. Timber in small quantities.
18. Wheelwright's Timber.
19. House Coal and Coke.
20. Forage (for six months ending 30th September, 1905, only.)
21. Veterinary Attendance.
22. Clothing.
23. Boots.
24. Drapery and
25. Books.

Forms of specification and tender, with conditions of contract, may be obtained, and samples inspected, on application to the Engineer and Surveyor, Council Offices, Wimbledon.

ELECTRICITY DEPARTMENT.

1. Engine Room Stores.
2. Cables.
3. Joint Boxes and Jointing Materials.
4. Transformers.
5. Meters.
6. Lubricating Oils.
7. Incandescent Electric Lamps, Carbons, and Accessories.
8. Iron Castings.

Forms of specification and tender, with conditions of contract, may be obtained, and samples inspected, on application to the Chief Electrical Engineer, Electric Light Works, Durnsford Road, Wimbledon.

Sealed tenders, endorsed "Tender for ——," must be delivered at my Office before noon on Saturday, the 4th day of March, 1905.

The lowest or any tender will not necessarily be accepted.

By order.

R. H. S. BUTTERWORTH,
Clerk to the Council.

Council Offices,
12, Queen's Road, Wimbledon, S.W.
1st February, 1905.

WANTED, Appointment as Assistant Storekeeper, &c. Age 20. A., Shere, Guildford.

MARRIED COUPLE seeks Situation in institution, either as Caretakers or other capacity. Good testimonials. State wages. G. C. H., MUNICIPAL JOURNAL Office, 12, Salisbury Square, E.C.

ARCHITECT, at present engaged by a borough council in preparing schemes for Artisans' Dwellings, desires Appointment of a similar nature. Advertiser is an Associate of the Royal Institute of British Architects, and is competent to take charge of any architectural or surveying work. Finest references in London. Further particulars on receipt of letter addressed A. R. C., 7, Hevington Avenue, Friern Barnet, N.

Official Advertisements.

BOROUGH OF BROMLEY, KENT.

BOROUGH ACCOUNTANT'S DEPARTMENT.

THE Town Council invite Applications for the post of CLERK in the Office of the Borough Accountant, at a salary of £70 per annum. Candidates must be competent to assist in keeping the books and accounts of the Department and to assist generally.

Preference will be given to candidates with experience in a similar Office, including preparation of Rate Books, and with a knowledge of shorthand and typewriting.

Applications, endorsed "Clerk," with copies of not more than three testimonials, must reach me not later than 5 p.m. on the 15th inst.

FRED. H. NORMAN,
Town Clerk.

Municipal Offices,
Bromley, Kent.
8th February, 1905.

METROPOLITAN BOROUGH OF ISLINGTON

ANNUAL CONTRACTS.

THE Council of the above Borough will meet on Friday, the 24th February, 1905, at 8 o'clock in the evening, to consider TENDERS for CONTRACTS for One Year (except as regards item No. 10, which will be for One or Three Years, at the option of the Council), from 1st April, 1905, as under :—

1. Providing and Supplying Horses, Harness, and Men for Vans for Watering Roads of the Borough (the Council supplying Vans and Water).
2. Cartage and Horse Hire.
3. Masons' and Paviors' Work.
4. Supply of Broken Blue Guernsey, Enderby, Quenest, and other Granites, and Granite Siftings.
5. Supply of Ballast, Crushed Shingle, Hoggin, Hard Core, and Flints.
6. Supply of Timber, &c.
7. Supply of Wheels and Tyres.
8. Supply of Manhole and other Covers, Gully Grates, Guard Posts, Castings, and other Ironwork.
9. Supply of Iron, Steel, and Tools.
10. Stationery.
11. Supply of Soap and Oilmen's Goods.
12. Supply of Coal and Coke.
13. Supply of Drapery and Towels.
14. Supply of Disinfectants, Bottles, &c.
15. Supply of Meters, Time Switches, Earthenware Pipes, Carbons, Incandescent Lamps, Terminal Boxes, Arc Lamp Globes, Oils Waste, Belting, Rubber and Asbestos, and Engineers' Stores Sundries.
16. Supply of Uniform Clothing, Hats, Caps, and Boots.

Persons tendering must give the names and addresses of two substantial householders as their sureties, prepared to join them in the execution of the contract; and must attend the meeting of the Council at the time named, and be prepared to deposit a £10 note in respect of each tender accepted, as a guarantee of good faith until the execution of the contracts. They must also make a declaration that they do and will, during the continuance of any contract they may enter into with the Council, continue to pay the trades union rates of wages as agreed to by the Employers' Associations and Trades Unions, and as in practice obtain, or, where there is no Employers' Association or Trade Union, such rate of wages as prevails in the particular trade, and observe the conditions and hours of labour prevalent among the several classes of labour they may employ; and they must also agree not to sub-let or assign over their contract, or any part thereof, without the written consent of the Council previously obtained.

Forms of tender and contract and other particulars may be obtained on application at the Town Hall, Upper-street, N., on and after Monday, the 13th February, 1905, between the hours of 9 a.m. and 5 p.m. (except Saturday).

Tenders (properly endorsed) must be received not later than noon on Thursday, the 23rd February, 1905.

The Council does not bind itself to accept the lowest or any tender.

By order.
WM. F. DEWEY,
Town Clerk.

Town Hall,
Upper Street, N.
8th February, 1905

BOROUGH OF SOUTHWARK.

CONTRACTS.

TENDERS are invited for the following CONTRACTS from the 1st day of April, 1905, to the 31st day of March, 1906 :—

1. Asphalte, Bitumen, Pitch, &c.
2. Ballast, Sand, &c.
3. Brooms and Brushes.
4. Coach Ironmongery.
5. Coals and Coke.
6. Disinfectants.
7. English Timber.
8. Foreign Timber.
9. Fodder (three months).
10. Granite (Broken).
11. Harness Materials.
12. Horse Hire.
13. Lime, Cement, and Bricks.
14. Linen Goods, &c.
15. Oils and Colours.
16. Packing Rope, &c.
17. Pitching and Paving.
18. Pipes.
19. Printing.
20. Sewer Ironwork.
21. Soaps and Soda.
22. Stationery.
23. Tools, Steel and Iron, &c.
24. Wheels, Tyres, &c.
25. Wood Blocks (Jarrah).

According to specifications, to be seen at the Town Hall, Walworth Road, S.E., any day between the hours of 10 a.m. and 4 p.m.

Tenders, duly signed, must be sent under cover, and endorsed "Tender for ——," and addressed to the Town Clerk, not later than 12 noon on Wednesday, February 15th, 1905.

The Council do not bind themselves to accept the lowest or any tender.

J. A. JOHNSON,
Town Clerk.

Town Hall,
Walworth Road, S.E.
27th January, 1905.

BOROUGH OF PLYMOUTH.

TENDERS FOR SUPPLY OF GOODS AND MATERIALS.

TENDERS are invited for the SUPPLY of the following GOODS and MATERIALS for One Year from 1st April, 1905 :—

Schedule A—Creosote.
" D—Paint and Linseed Oil.
" F—Road Metal.
" H—Ironwork.
" K—Petroleum Oil.
" L—Broom Heads.
" M—Refilling Machine Revolving Brooms.
" P—Iron, Steel, Bolts and Nuts.
" S—Carbolic Powder and Sanitary Fluid.
" T—Portland Cement.
" U—Lubricating Oil.
" W—Tar and Pitch.
" X—Painters' Brushes.
" Y—Explosives.
" AA—Glass, Painters' Tools, &c.
" DD—Soap.

Tenders must be based on the whole of a schedule, and not on any particular item contained therein.

Schedules may be obtained on payment of a deposit of £1 in cash for each schedule (cheques will not be received), which will be returned on receipt of a bona-fide tender. Should the contractor withdraw his tender or fail to send in one, the amount of his deposit will be forfeited, and the contractor who applies for the schedules must do so on the distinct understanding that he is willing to abide by the terms of the advertisement.

Persons tendering must bind themselves to pay the standard rate of wages, and adopt the standard hours of labour considered fair in the district of the Three Towns.

The lowest or any tender will not necessarily be accepted.

Tenders to be delivered not later than the 18th February, addressed to the undersigned, with the exception of Schedule "DD" (Soap), which must be addressed to the Medical Officer of Health, 19, Whimple Street, Plymouth.

JAMES PATON,
Borough Engineer and Surveyor.

Municipal Offices.
16th January, 1905.

WALTHAMSTOW URBAN DISTRICT COUNCIL.

TENDERS FOR SUPPLIES, &c.

THE Council hereby invite TENDERS for the SUPPLY of the following—for the Twelve Months ending 31st March, 1905 :—

1. Granite Kerb and Setts.
2. Broken Granite for Macadam.
3. Granite Chippings for Manufacture of Paving.
4. Ballast and Flints.
5. Iron Castings.
6. Ironmongery, &c.
7. Wheelwrights' and Blacksmiths' Goods.
8. Blue Lias Lime.
9. Lime for Sludge Pressing and Precipitation.
10. Portland Cement.
11. Illuminating Oils, &c.
12. Glass, Colour, &c.
13. Stoneware Pipes, &c.
14. Harness and Saddlery and Repairs.
15. Scavengers' Brooms.
16. Sludge Press Cloth.
17. Waterproof Loin Cloths and Clothing.
18. Electricians' Materials.
19. Lubricating Oils.
20. Disinfectants.

Forms of tender and further particulars may be obtained at the Surveyor's Office, Town Hall, Walthamstow, on and after Friday, the 10th instant.

1. Bread and Flour.
2. Meat.
3. Milk, Butter and Eggs.
4. Groceries, &c.
5. Oilman's Goods.
6. Fruit and Vegetables.
7. Fish.
8. Drapery.

(For delivery at the Council's Sanatorium, Chingford.)

9. Uniforms, Boots, &c.
10. Brooms, Brushes, and other Domestic Articles.
11. Lamp Columns.
12. Soap.

Forms of tender may be obtained on and after Friday, the 10th instant, on application at the Clerk's Office.

Sealed tenders to be delivered to the undersigned not later than 5 o'clock p.m. on Friday, the 24th day of February, 1905.

The Council do not bind themselves to accept the lowest or any tender, and reserve to themselves the right to accept any part of a tender.

The contractors will be required to pay the whole of their workmen such rate of wages and observe such hours of labour as are recognised by the various trades unions, and in force at the time of signing the contract.

C. SYDNEY WATSON.
Clerk of the Council.

Town Hall, Walthamstow.
7th February, 1905.

WALTHAMSTOW URBAN DISTRICT COUNCIL.

TO PRINTERS, STATIONERS, AND OTHERS.

THE Council invite TENDERS for PRINTING, STATIONERY, and SUN PRINTS.

Forms of tender may be obtained and samples inspected at the Clerk's Office, on and after Friday, the 10th instant.

Sealed tenders to be delivered to the undersigned, not later than 5 o'clock p.m. on Friday, the 24th day of February, 1905.

The Council do not bind themselves to accept the lowest or any tender, and reserve to themselves the right to accept any part of a tender.

C. SYDNEY WATSON,
Clerk to the Council.

Town Hall,
Walthamstow.
7th February, 1905.

AGENTS REQUIRED in unrepresented districts for the Imperial Accident, Live Stock, and General Insurance Co., Ltd. Estd. 1878. Departments : — Personal Accidents, Carriage and Drivers' Accidents, Horse and Cattle Insurance. Claims paid £300,000. Address Mr. B. S. Essex, Manager, 17, Pall Mall East, London, S.W.

SURVEYOR (Retired, Government of India), seeks Employment as Draughtsman. Experienced in levelling and land surveying. Moderate salary. G. C., 19, Hyde Vale, Greenwich, S.E.

Official Advertisements.

COUNTY BOROUGH OF WEST HAM.

PRIVATE STREET WORKS ACT, 1892.

TO CONTRACTORS.

THE Council hereby invite TENDERS for MAKING-UP the following STREETS :—
Totnes Road.
Charford Road.

Plans may be seen, and specification, form of tender, and further particulars obtained at the Office of the Borough Engineer, Town Hall, West Ham, E., upon payment of One Pound, which will be returned upon receipt of a bona-fide tender.

Tenders, endorsed "Tender for Private Street Works," to be sent to my office not later than 4 o'clock on Tuesday, 28th February, 1905.

The Council do not bind themselves to accept the lowest or any tender.

The contractor will be required to enter into a bond with two sureties for the due performance of the contract, and no work will be ordered under the contract until such bond has been duly executed.

The contractor whose tender is accepted, and with whom a contract is entered into, will be required to pay to the whole of his workmen such rate of wages, and observe such hours of labour, as are recognised by the Workmen's Trade Unions, and shall not assign, nor underlet, or make a sub-contract with any person or persons for the execution of any part of such work. In the event of any breach of such agreement the Council will enforce the penalty clause in its entirety.

By order of the Council.
FRED. E. HILLEARY,
Town Clerk.

Town Hall,
West Ham, E.

COUNTY BOROUGH OF WEST HAM.

TO BUILDERS AND CONTRACTORS.

THE Council hereby invite TENDERS for—

1.—The Extension of Public Baths, Balaam Street, Plaistow.
2.—Alteration to Prisoners' Cells, Quarter Session Court, West Ham Lane. Stratford.

Plans may be seen, and specification, form of tender, and further particulars obtained at the Office of the Borough Engineer, Town Hall, West Ham, E., on and after Thursday, the 16th February, 1905, upon payment of one pound in respect of each contract, which will be returned upon receipt of bona-fide tenders.

Tenders, endorsed "Tender for Baths Extension" and "Alterations to Prisoners' Cells," to be sent to my Office not later than 4 o'clock on Tuesday, 28th February, 1905.

The Council do not bind themselves to accept the lowest or any tender.

The contractor will be required to enter into a bond, with two sureties, for the due performance of the contract, and no work will be ordered under the contract until such bond has been duly executed.

The contractor whose tender is accepted, and with whom a contract is entered into, will be required to pay to the whole of his workmen such rate of wages, and observe such hours of labour, as are recognised by the workmen's trade unions, and shall not assign, nor underlet, or make a sub-contract with any person or persons for the execution of any part of such work. In the event of any breach of such agreement the Council will enforce the penalty clause in its entirety.

By order of the Council.
FRED. E. HILLEARY,
Town Clerk.

Town Hall,
West Ham, E.
9th February, 1905.

BOROUGH OF LEIGH.

LEDGER CLERK.

THE Corporation of Leigh require the services of a LEDGER CLERK in the Borough Accountant's Office. Salary £78 per annum. One having had experience in a borough accountant's office preferred. Applications, stating age and experience, and endorsed "Ledger Clerk," accompanied by copies of not more than three testimonials of recent date, must reach the undersigned on or before 12 noon, of Wednesday, the 22nd February, 1905.

PEREGRINE THOMAS,
Town Clerk.

Town Hall, Leigh,
8th February, 1905.

SUN FIRE OFFICE
FOUNDED 1710

SUN FIRE OFFICE

HEAD OFFICE:
63, Threadneedle Street, London, E.C.

Branch Offices in London:
60, Charing Cross, S.W.
382, Oxford Street, W.
40, Chancery Lane, W.C.
4, Mincing Lane, E.C.

BIRMINGHAM .....10, BENNET'S HILL.
BRISTOL..... CORN STREET.
LEEDS.....SUN BUILDINGS, 15, PARK ROW.
LIVERPOOL.....SUN BUILDINGS, 6, CHAPEL-ST.
MANCHESTER..... 71, KING STREET.
NEWCASTLE..... 19, COLLINGWOOD STREET.
EDINBURGH.....40, PRINCES STREET
GLASGOW..... 42, RENFIELD STREET.
DUBLIN .....10, TRINITY STREET.

Funds in Hand, £2,535,800

DELICIOUS COFFEE.
RED WHITE & BLUE
For Breakfast & after Dinner.
In making, use LESS QUANTITY, it being so much stronger than ORDINARY COFFEE.

MUNICIPAL CONCERTS.
Season 1905.

First-class Bands, of 4 to 50 Performers, and Concert Artistes supplied at minimum rates for Watering Places and Spas.
Auditions in London free.
J. HERBERT JAY,
10 & 11, Jermyn Street, Piccadilly.
Telephone—6534 Gerrard.

NOTICE TO SUBSCRIBERS.

A New and Enlarged Series of THE MUNICIPAL JOURNAL will be commenced with the issue of March 3.

Subscriptions paid will run to the end of the period for which they were accepted, when the revised rate for the New Series, as set forth below, will come into force.

SUBSCRIPTION TERMS
(TWOPENCE WEEKLY)

FOR THE UNITED KINGDOM.
Post free.

Three Months	2s. 6d.
Six Months	4s. 9d.
Twelve Months	9s. 6d.

ABROAD.

Six Months	6s. 6d.
Twelve Months	13s. 0d.

Cheques and Postal Orders to be made payable to EDWARD LLOYD, Limited, 12, Salisbury-square, London, E.C., and crossed "London and Westminster Bank."

EATON & KNAPP,
BOILER SETTERS & FURNACE BUILDERS,
Repairs in Boiler Brickwork & Dust Destructors of all kinds.
ESTIMATES FREE.
23, CLACTON ROAD, WALTHAMSTOW.

An admirable Food of the
EPPS'S
Finest quality and flavour.
COCOA
Nutritious and Economical.

MUNICIPAL JOURNAL
FRIDAY, FEBRUARY 10, 1905.

NOTES AND COMMENTS.

Liverpool and Federation.

THE local authorities in the Liverpool and Bootle districts must be fervently wishing for a settlement of the boundary disputes that are just now preventing a proper application to the real work of local government. The Liverpool Federation scheme is dropped for the present, but its basis is such a sound and strong one that its adoption—or the adoption of a measure on parallel lines for the attainment of similar objects—cannot for long be delayed. This is the view generally accepted at Liverpool. The day after the adverse decision of the City Council, a gentleman, who is a well-known authority on the trade of the port, said the scheme had gone through the usual process of being first of all rejected. It would be next looked into, then favourably regarded, and afterwards adopted. In the meantime. Liverpool is opposing the Bootle Bill for the extension of the boundaries to include Orrell, as by this arrangement Liverpool would be shut in on the north-east, and would be prevented from getting into touch with Waterloo-with-Seaforth, which is largely—in fact, almost entirely—inhabited by Liverpool people .Disputes of this character will in the end create a public opinion so strongly in favour of federation that no council will be able to stand against it. For these boundary controversies are among the most expensive luxuries that a local authority can indulge in.

The Company and the Running Powers.

AT the time when the Newcastle running powers controversy was agitating both the public and Parliament, our suggestion that the company's action was dictated by sordid commercial motives was indignantly repudiated. "The accusation is absurd and unfair" wrote the company's spokesman in effect. "All we want to do is to provide efficient travelling facilities for the tired workmen of Wallsend." This was not quite the tale that was told at the half-yearly meeting of the Tyneside Tramways and Tramroads Company a few days ago. Lord Armstrong, the chairman, assured the shareholders that the monetary results from the operation of the modified arrangement fully justified the expenditure incurred in securing the powers :—

During the month of April—before the running powers were commenced—the

number of passengers in Wallsend travelling to or from the junction between the two systems amounted to 28,627, whereas the equivalent figure in September, after through traffic had been introduced, was over 66,000.

As the consumption of current was the only item which increased through the additional passengers carried, and as the company obtained from the Newcastle Corporation four-fifths of the receipts which the Corporation cars earned on this section of the line, it would be seen that the agreement would far more than justify both the capital cost of securing it and the burden which the efforts in this direction had laid on this year's revenue.

Lord Armstrong will probably urge, in extenuation of the denials he allowed to be published at the time of the controversy, that this benefit to the company is merely an incidental advantage arising out of the philanthropic scheme in aid of the tired workmen of Wallsend. We can better estimate now what the gain to the company would have been had it succeeded in the application for compulsory powers which it at the outset attempted to get through Parliament. Agreement or no agreement, the value of the company's undertaking as a "going concern" must be appreciably enhanced. Suppose that Mr. Garcke desired to purchase it, for instance, would the shareholders not put a greater value on their holdings now than they would have done before the agreement was concluded?

Urban District by Private Statute.

A MEASURE whose fate will be watched with much interest in the ensuing session of Parliament is that promoted by the West Lancashire Rural District Council for the creation of the Urban District of Formby out of a parish now part of its own area. This unusual method of procedure is a result of the Caterham case, by which it was decided that an urban district constituted by a county council in the customary manner could not make good to the rural area out of which it was taken any profitable income such rural area had obtained through the previous association. The Godstone Rural District Council, it may be remembered, stated that it made £1,200 per annum out of Caterham above and beyond what it spent on that parish, and this sum was capitalised at £36,000. The Caterham Council contended it was not called on to make this loss good, but Justice Wright, on a case stated, found for Godstone, and his verdict, on appeal, was sustained by Justices Vaughan Williams, Stirling, and Mathew. Caterham, however, took the matter to the House of Lords, and won. Before the Lords had given their decision, Formby had been made an urban district by the Lancashire County Council, and an agreement had been come to between the prospective urban district and the West Lancashire Rural District Council, in whose area it was situated, respecting certain financial adjustments that would prevent the rural district suffering a too serious loss of income, with its consequent increased rating of the remaining parishes in the area. The final outcome of the Caterham litigation rendered it impossible for due effect to be given to the more important of the fiscal arrangements between the two bodies, representing, it is said, to the West Lancashire Council about £1,000 annually, or, capitalised, say, £30,000. As the Rural District Council had consented to the creation of the urban district, in the belief that the financial agreements provisionally made could be legally carried out, it applied to the Lancashire County Council to rescind the order. This the County Council, after inquiry, declined to do, and the West Lancashire Council has accordingly introduced a Bill by which Formby is made an urban district of the usual type, but, in addition, will have power to compensate the rural district, to a certain extent, for the loss of income the withdrawal of its rateable value means.

TO OUR READERS.

ENLARGEMENT

OF THE

MUNICIPAL JOURNAL.

COMMENCING with the issue of March 3, the MUNICIPAL JOURNAL will be enlarged to 36 pages. The expansion has become necessary for several reasons, the principal of which is the striking development of local government during the past several years. Concurrently with that development, we have been obliged to introduce many new features which we are conscious have not received adequate treatment, owing to lack of space. Education is one large new subject to which our columns have been opened, and the Poor Law problem is another. We are constantly receiving letters from our readers asking for more information on particular problems than we have hitherto been able to give, and the authoritative position now occupied by our periodical makes it necessary that these requests shall be complied with.

Our future programme will proceed on the lines of extending our present features, and introducing as many new ones as possible. It also provides for the publication of more of those informative articles on particular subjects which readers throughout the Kingdom—whether councillors or officials—have assured us have been highly useful to them.

These developments will involve an increase in the price of the JOURNAL to 2d.—with a special discount to subscribers. The paper will still, considering the quantity and value of the information and news which it gives, be the cheapest weekly journal of its kind.

The first number of the new series will be arranged upon a novel plan, and will constitute a survey of the present position of municipal enterprise in all its branches. We are arranging for articles by well-known experts.

Is it a "Municipal Society?"

THE question is naturally suggested by a perusal of the speeches and resolutions made and adopted at the annual meeting of the London Municipal Society this week. How far this interesting organisation is a "municipal" society can be gathered from the following resolution, which was adopted enthusiastically:—

> That reform of the municipal franchise is urgently necessary to secure the representation in local affairs of joint stock companies, and other incorporated bodies paying rates; and that, with regard to rating such an amendment of the system of compounding is desirable as shall indicate to every tenant the sum required for payment of rates in respect of the premises occupied by such tenant.

The first part of the resolution expresses opinions which we are used to hearing from company promoters and bodies like the Industrial Freedom League and the Liberty and Property Defence League, but which are seldom advocated by representative municipal bodies. As we pointed out last week, the borough councils that have been asked to join in this movement have almost without exception refused. The object of the agitation is clear. It is to alter the voting power in the municipal electorate so that companies may be able to dominate local affairs and endanger industrial enterprises like tramways and electricity supply, in order that the advantages of these undertakings shall be transferred from the ratepayers to company directors and shareholders. The second part of the resolution is less harmful, but even under the present circumstances, any tenant who pays his rates with his rent can ascertain with little trouble how the total is made up. Many unscrupulous landlords, however, would not like the change—a fact that evidently passed the notice of the London Municipal Society. It is a common practice for these gentlemen to raise their rents on the ground that the rates have increased, but the additional rent is as a rule out of all proportion to the increase in the rates. The London Municipal Society, which believes in the principle of looking after its friends, must alter this part of its resolution.

"Subsidised" Tramways.

IT is a pity that this society, which for platform purposes is so anxious to give accurate information to tenants respecting their rates, does not instruct its speakers to talk a little more truthfully about the services for which these rates are levied. Lord Onslow, for instance, who is the president of the society, made a remarkable statement at the meeting—

> They found that great industrial concerns, such as the railway companies, who contributed enormously to the rates, now found competing with them tramway enterprises which were subsidised out of the money of the ratepayers. The returns of the railway companies which dealt with suburban traffic stated that they must diminish the number of their suburban trains, shut up some of their smaller stations, and thereby decrease the facilities offered to the travelling public.

Now, Lord Onslow was for some time the leader of the Moderate party on the London County Council, and his suggestion, if there is anything in it at all, is that the Council's tramways have been a charge upon the rates. The fact of the matter is, that these tramways have actually contributed more than a quarter of a million sterling towards the relief of the rates. The mental process by which his lordship transforms this relief into a "subsidy" is somewhat difficult to follow, and as an explanation of it we can only suggest that he has been taking lessons from the ingenious arithmetician of the Liberty and Property Defence League, who has been so busy lately. As to the point about railway companies paying rates, their privilege is shared by the London County Council, which also keeps in repair a permanent way for the use of its competitors, the omnibus companies. Railway companies that run over another company's lines have to pay for the concession, but in London and all great cities and towns omnibus companies are allowed to run over streets towards whose maintenance they pay little or nothing. Here, at any rate, is an opportunity for the reforming proclivities of the London Municipal Society and kindred organisations.

POOR LAW OUTLOOK.

How Borough Councils and Guardians may Join Hands. "Brutal and Unpardonable Callousness" in Stepney Workhouse. Judgment by the Press. Another Union to Tackle the Question of Out-Relief. A Contrast. Attitude of Northern Local Authorities to Labour Colonies. The Question of Women as Guardians at the Forthcoming Elections.

Unity in Work.

FURTHER expressions of opinion in favour of the suggestions we threw out in these columns a few months ago for co-operation between the sanitary authorities in towns and the guardians of the poor are recorded in another page of this issue. At the present time there is much overlapping of work by these two bodies, and much that escapes the attention of each. Sanitary inspectors know of cases of deserving poverty which the relieving officers ought to know, and relieving officers know of insanitary conditions of dwellings which ought to be known to the sanitary inspectors. Why cannot these officers' duties be brought into unison? It is an undoubted fact that town councils and boards of guardians may increase or reduce that poverty which leads to pauperism and to insanitation. The two factors act and re-act. It may be suggested that the only logical reform is to make one body solely responsible. But this over-lapping only takes place over part of the area of work covered by the two bodies. And the absorption of boards of guardians by borough councils is not yet.

❦ ❦ ❦

Whose Fault is It?

THE death of an old woman of seventy-three, who had been an inmate of the Stepney Workhouse for twenty years, from what was stated by the medical officer of the workhouse (Dr. Butler Hogan) to be improper feeding, has caused very considerable discussion in Poor Law circles this week. It was alleged that shortly before her death the woman, who had been ill, was given dry bread, cheese, and coffee, a diet entirely in opposition to the doctor's orders. We have combated recent statements about the modern workhouse being made too comfortable, but if we are to believe these statements of the medical officer, Stepney Workhouse is a very long way from being too comfortable. He says he has repeatedly protested against the dietary. He has told the guardians that on certain days the food was worse than gaol food.

❦ ❦ ❦

More than "Culpable Negligence."

THESE are very serious charges to be levelled against the Board. They must, we think, be taken with reserve. The *Daily Telegraph* has, however, seen fit to make some very strong statements. In a leading article it exclaims:—

> For dry bread, cheese, and coffee, as a diet for the aged occupants of a sick ward, is, to speak frankly, a brutal and unpardonable piece of callousness. We should suppose it to be merely culpable negligence but for the plain statement of the medical officer that he had frequently complained of it. We are not advocating luxurious living in workhouses—the steady growth in the number of people in receipt of Poor Law relief is one of the most sinister signs of the times—but there is no excuse for such an incident as that at Stepney. There ought at least to be the exercise of a little common kindliness and consideration.

What a striking contrast these statements make to those of the *Times* in December last, when it made an attack on the comforts of the modern workhouse, and grew pessimistic on the changing attitude of the poor to those institutions. Again, at Hampstead, a few weeks ago, the Visiting Committee of the Board of Guardians called attention to the "terrible waste" in the workhouse, owing to the fact that most of the food had to be served out in regulation quantities to each inmate, irrespective of whether he or she could eat it or not. The tendency to-day seems rightly to be in the direction of liberality rather than of stinginess, and our knowledge of the Stepney Union does not lead us to believe it stands in unfriendly isolation.

The Question of the Day.

IT is gratifying to notice the growing disposition there is amongst the more considerable English unions to tackle the question of out-relief. Last week we recorded the investigations of St. George's, Hanover Square, and this week the more satisfactory conclusions of Cardiff are well worth comment. First let us point out how Cardiff stands in this matter. The average weekly out-relief per head in Cardiff is 2s. 4d., as against 2s. 2d. for England and Wales, and 2s. 5d. for South Wales. The percentage of out-door relief to population is 2·06 in Cardiff, while the average in England and Wales is 1·59, and in South Wales 2·15. In a word, these figures indicate dole-giving. There are a great number of people receiving out-relief in small pittances. No more dangerous system of relief can be adopted. It is very true in out-relief that a small allowance is worse than none at all. If a case is really a suitable one for out-relief, that out-relief should be adequate, and not such that it will lead to greater inefficiency——moral and physical—on the part of the recipient.

❦ ❦ ❦

A Contrast.

IN marked contrast to this is the Bradford Union, which is the same in population as Cardiff within 13 people. Bradford's percentage is ·54, and our readers know well what is the system adopted. On the other hand, Bradford pays as much as 3s. per head in average weekly out-relief.

❦ ❦ ❦

Superintending Relief.

THOSE boards of guardians that have not been wise enough to appoint a superintendent relieving officer should notice that Cardiff is amongst that number. There can be no doubt that if a superintendent relieving officer be appointed who is an expert he can do much to rednce the amount of out-relief. The Cardiff Board, however, seems unprepared for this course, but it is gratifying to notice that at its last meeting it decided to appoint a small committee of inquiry. As far as we can gather, it would seem that this small committee will occupy a somewhat similar position to that of a superintendent relieving officer.

❦ ❦ ❦

A Noteworthy Suggestion.

THE ordiuary relieving officers will present to it all doubtful cases, or cases where relatives are able to give support without the applicant coming upon the rates. It was suggested by one of the Guardians (the Rev. J. R. Buckley), whose motion on the subject was carried unanimously, that—

> If relieving officers presented to that committee all doubtful cases, or cases where relatives were able to support the paupers, much good could be done. If the committee went thoroughly into the whole question, then they could present a report to the Board, and the latter could see where the money was unnecessarily spent.

Strangely enough, though these suggestions were adopted, several of the Guardians, even including the rev. gentleman who moved the resolution, expressed themselves that they knew of no single case where relief could be reduced. This, however, makes the case all the stronger for fuller and better means of investigation.

❦ ❦ ❦

The Question of Labour Colonies in the North.

A MUCH-TALKED-OF and largely attended conference, representative of many of the public authorities in Northumberland, Durham, Cumberland, and Westmoreland, for the purpose of "evolving a comprehensive scheme for dealing with the problem of unemployment," was held a few days ago at Newcastle. At the instance of the Newcastle Board of Guardians, delegates to the number of 111 came together from no fewer than thirty-nine local authorities in the North country. Of the local bodies thus represented seven were town councils, seventeen urban district councils, and fifteen boards of guardians. The gathering, which included a number of ladies, was presided over by the chairman of the Newcastle Guardians (Mr. C. T. Stableforth), and the proceedings were of a protracted character, lasting as they did fully four hours. But unfortunately what may be regarded as the chief resolution of the day was not passed. The conference would not pin itself to affirm the principle of establishing a labour colony in the North of England *pur et simple*. But an amendment to the resolution was adopted, adding the words "or any other method that can be adopted." Amongst other business transacted, however, was the appointment of a committee to draw up a scheme to be submitted to the various administrative bodies in the four northern counties for their consideration. Mr. J. Fels attended the conference, and described himself as a "Tory-Socialist-Liberal," possibly meaning that he stood for no party. In a few straight words he declared himself a follower of Henry George. "I am a land reformer," he said; "I don't think anybody ought to have a patch of land in fee simple; it ought to belong to the nation." And Mr. Fels is a wealthy tradesman who carries his views into practice.

❦ ❦ ❦

Motor-Propelled Ambulances.

NOT before time, the Metropolitan Asylums Board has decided to move in the matter of motor-propelled ambulances. At a meeting of the Board on Saturday it was decided to advertise for tenders for their supply on hire. The words "on hire" were an amendment of a recommendation of the Ambulance Committee, to whom the matter was referred in July of last year. The committee stated that it was satisfied that the Board would be able to obtain at a reasonable price (certainly not exceeding £500) an ambulance for one or two patients which would be suitable for the Board's special requirements, and subject to such conditions as to experimental use before purchase as would facilitate the ultimate selection of a vehicle which would be satisfactory in the opinion of the Board's medical and mechanical advisers. The matter is one that admits of no delay, and it is to be trusted that after the hire system has been tried the Metropolitan Asylums Board will place an order for these useful vehicles.

❦ ❦ ❦

Provision for Epileptic Children.

THE homes for epileptic children at Lingfield, Surrey, and Starnthwaite, Westmoreland, belonging to the Christian Social Service Union, hitherto under the supervision of the Local Government Board, are about to be certified by the Board of Education, in order that education authorities may be able to send children to them, instead of providing their own special schools. Authorities are empowered under the Act of 1902 to make such provision. Recent extensions have made it possible to receive additional children—both boys and girls—at Lingfield, and boys only at Starnthwaite.

❦ ❦ ❦

Women as Guardians.

OF the 24,310 Poor Law guardians in England and Wales, about 1,033 are women, and of the 3,300 rural district councillors about 109 are women. The Women's Local Government Society is just now rightly making a special effort to help localities to organise for the purpose of enconraging and assisting the candidature of women. There is scope for much work in this direction, as on about half of the 138 boards of guardians to which members will be elected in April there have been no women serving. It is estimated that an increase of income to the extent of £200 for the cnrrent year will be necessary to enable the society to carry out the efforts it is proposed to make.

In Use in over 100 CENTRAL and POWER STATIONS,
AND MANY THOUSAND PRIVATE INSTALLATIONS.

E. P. S. STORAGE BATTERIES

ARE MANUFACTURED ONLY BY THE

ELECTRICAL POWER STORAGE CO.,
4, GREAT WINCHESTER ST., LONDON, E.C.
Telegrams—"STORAGE," LONDON. Telephone—No. 1253, London Wall.

NERNST ELECTRIC LAMP,
The Ideal Lamp for Street Lighting.

Patentees for U.K.: The A.E.G. English Mfg. Co., Ltd., 4/5, New Compton Street, London, W.C.

AUGUSTE PELLERIN'S
BRITISH-MADE
MARGARINE MIXTURES.

AWARDED 10 GOLD MEDALS. AWARDED 10 GOLD MEDALS.

"LE DANSK" 1st Quality.

The LANCET says: "It is of pure and excellent quality."
The PUBLIC ANALYST says: "The gustatory properties are in every way equal to the best Butter, and the dietetic value is identical."

ALSO VARIOUS CHEAPER GRADES
SPECIALLY PREPARED FOR PUBLIC INSTITUTIONS.

"LE DANSK" FACTORY, SOUTHAMPTON.

DIALITE

THE STANDARD CABLE FOR ALL PURPOSES.

THE ST. HELENS CABLE CO., Ltd.,
WARRINGTON.

ELECTRICITY SUPPLY.

The Necessity for Keeping a Close Watch upon the Latest Developments in Plant and Production. The Single-phase High Tension Mode of Transformation is not Obsolete. Requirements of Large Power Users. Liverpool's Accounts for 1904 are Highly Satisfactory.

THE first of the accounts for the year ending with the close of 1904 to come into our hands is that of the Liverpool Corporation, but as it is conspicuous by its omission of the particulars of output required by the Board of Trade form, the full analysis must be reserved for next week. The figures are sufficiently large to be impressive, lighting and power representing £135 631; public lighting, £2,372, and traction, £91,674; current alone aggregating £229,677. The profit from manufacturing account was £3,719, and meter rents £2,326, while sundry receipts of various amounts brought the total up to £236,404. The general nature of the business for the year was as follows:—

The revenue derived from sales of current, &c., amounted to		£236,404
And the working expenditure to		99,799
Leaving a gross profit of		£136,605
Out of this sum the following requirements were met:—		
Interest on mortgage debt	£53,775	
Sinking fund	38,362	
Total of capital charges		92,137
Surplus for year		£44,468
This was appropriated thus:—		
Reserve fund	£16,286	
Renewal fund	11,290	
General rates	16,935	
Bad debts	114	
Credit received from interest account		157
Total	£44,625	£44.625

The reserve fund now stands at £49,086 and the renewal fund at £58,046, a total of £107,132.

❦ ❦ ❦

Liverpool's Premier Undertaking.

THE increase in receipts, including interest, was £29.584, while the expenditure was greater by £958, leaving an additional gross profit of £28,626; the capital charges and bad debts took £15,415 more, so that the surplus was greater by £13,211. Of this the extra amounts allocated were—to reserve £6,286, to renewals £288, and towards the general rate £6,637, making up the sum of £13,211. As the amount available for extraordinary expenses falls considerably below the tenth of the capital invested, £1,718,712, it might be urged that the increase in the contribution towards the rate is undnly high. The rapid growth in the capital charges also might cause some uneasiness, especially as the extensions must take the form of high-tension transmission plant, which will involve a heavy capitalisation in new feeders not themselves directly revenue-producing. On the whole, the accounts are highly satisfactory, and Liverpool may rank as the premier undertaking of its kind in the country, being the only one besides Manchester which on a large scale combines lighting and traction under the control of a municipality. The expenses include such items as £36,013 for coal, and £25,101 for salaries and wages. The capital invested was covered by the following items:—

Land	£7,625
Buildings	215,235
Machinery	419,416
Accumulators	8,583
Mains and services	500,5 0
Meters	26,282
Electrical instruments	5,557
Purchase of company	36,474
	400,000
	48,080
Various	50,951
Total	£1,718,713

❦ ❦ ❦

"Obsolete" Plant.

CORRESPONDENTS from various parts of the country have called our attention to the feeling which is becoming prevalent amongst the councils which own alternating supply systems, that the single-phase high-tension mode of transformation is obsolete. This is far from being the case, for although it is the exception to find a new works laid down to work on this system, a great deal is being done to extend its usefulness, and render it applicable to the needs of the user of power. The elaborate experiments being carried out with single-phase traction motors are sufficient evidence of this, while the growing motor load on those undertakings which have the courage to supply at a competitive rate, shows that it is not so much the system itself as its commercial handling that has been at fault in the past. It must be remembered, when discussing this question, that the works now being put down are for supply either to large bulk areas or to compact districts. In the former case the three-phase system is naturally adopted, in order to readily meet the requirements of large power-users, and also to enable the sub-station transformers or convertors to be supplied; while in the latter the direct current low-pressure system is at once the simplest and the cheapest to instal. It is quite possible that further additions might be made advantageously by two-phase plant if the motor load is to be catered for, but it cannot be too clearly understood that there is no such thing as more than one phase in the lighting department. The phases on multi-phase systems are separated and used independently for lighting, the load being divided and balanced between them. Small single-phase motors are not only cheaper, but for all practical purposes as good as multiphasers, and few municipal undertakings have to deal with exceptionally large units.

❦ ❦ ❦

Words on Lamps.

IT is indeed fortunate that the incandescent lamp has not been overlooked while attention has been concentrated principally upon means of reducing the cost of generating electricity. Even technical contemporaries are compelled to admit that incandescent gas mantles are found in some cases to have supplanted the electric lamp, and if we have been rather insistent upon this change to be found in the past couple of years, it has been with a definite object in view. Members of local authorities are apt to attach blame to their officers for such changes in fashion, but they are in no way responsible. Progress proceeds by steps; sometimes one and then another form of illuminant receives an impetus by reason of some improvement in its utilisation, and it has happened that the gas engineer has been given the advantage in the race for the time being. If the experiments on new filaments now reported from Germany result—as they bid fair to do—in the production of a lamp with double the efficiency of the carbon filament, the tables will be turned. The knowledge of German chemists in the metallurgy of the rarest groups of elements is being turned to account, and some new developments due to the use of a metal whose very name is strange to English ears may come before long. The new Siemens and Halske lamp has a filament of wire made from the rare metal tantalum, and as it is said that the firm is ready to turn out a thousand lamps a day, and that samples have been under trial for over twelve months, it should not be long before experience with the latest departure is gained in this country.

❦ ❦ ❦

Relative Cost of Production.

AN electricity works may be regarded commercially as a manufactory where raw material in the form of coal is, by the aid of auxiliary materials such as water, turned into a finished article—the Board of Trade unit of electrical energy. We have often alluded to the means of ascertaining the cost of producing each unit under different conditions of consumption. To ensure that the change is effected under the most economical conditions, it is necessary that each detail of the process should be carefully studied and kept at the greatest possible state of efficiency. The raw material must be of the highest quality procurable; but this is too often left to the seller, whose word is taken without question. It is timely that the writers of a paper now before the Institution of Electrical Engineers for discussion should insist upon the saving which results from the systematic sampling and testing of fuel under expert control. Comparatively few works managers take the trouble to carry out tests of coal, although the practice is extending as its value becomes recognised. The chief reason which is given for its neglect in the past was the idea the colliery owners would accept no responsibility for the material which they sold. They professed to be unable to give any warranty, and the purchaser was expected to be satisfied if a certain weight of some "black stuff" was sent him. The weight, being checked, was considered to entitle the vendors to payment, coal being perhaps the only material purchased which was not tested for quality. This conception of trade in fuel is gradually passing away, though it dies hard; but electrical engineers are too keenly interested in heat-units to leave anything to chance, and the practice of testing a sample from each delivery of coal is now in vogue in all the larger undertakings with very beneficial results.

❦ ❦ ❦

The Attitude of the Consumer.

IT has been found by no means an unremunerative course to invite consumers to apply to the staff of a corporation electricity department for advice, so as to assist the user in improving the results attained by his electric lighting. One local authority, finding that there was a growing feeling of dissatisfaction with the cost of the supply, circularised its electricity consumers, informing them that all complaints would be thoroughly investigated, and suggestions made wherever possible towards improvement or reduction of expense. Advantage was taken of the replies to get in touch with the discontented members, and, each case being followed up, not only did large extensions to the existing installations result, but numerous lapses from the use of electricity were prevented. A kind of popular course of instruction was instituted, which led to the causes of dissatisfaction being removed, frequently traceable to the employment of cheap, inefficient lamps, run far beyond their "smashing" point, or to an unforeseen local diminution of pressure; and increased interest in the business was awakened by the public having learned how to make the most of the facilities provided. It is astonishing how little the average user of electric light has learned about lamps and fittings, and as he regards these things as being far beyond his ability to comprehend, the details are generally left to a wiring contractor, whose interests seldom fall in with those of the suppliers of electricity or the user. A little patient explanation and personal demonstration goes a long way to improve matters, and it is also true that the mere expression of interest in and willingness to assist gives the consumer a predisposition to regard the electricity department in a friendly light rather than as another section of the rate-collecting machine which twice a year exercises such a severe pressure upon his purse. For this reason it is very desirable that the collectors of electricity accounts should not at the same time be rate-collectors. Several corporations issue cards or books giving a few hints to the consumer how to handle his fittings, when to renew his lamps, and so on. Although no printed matter is as valuable as a personal interview, it is very useful to be able to place some concise and simple information in the hands of all who are or may be consumers; and when care has been taken in the selection of the subject matter, so as to render it attractive, a canvasser has some ground to work on. All these aids to business, however, come second to the best advertisement—a satisfied consumer who knows he gets full value for his money.

HUMBER CONSERVANCY.

DRASTIC PROPOSALS WHICH AFFECT LOCAL AUTHORITIES.

THE local authorities concerned will do well to watch very closely the proposals of the Humber Conservancy Commissioners, as contained in a Bill which they have deposited in the Private Bill Office of the House of Commons. The Bill is in five parts, and several of its important proposals are novel in character, and, if they become law, will not only affect the administration of the Conservancy, but will also vary its constitution very considerably. It is set forth in the preamble that:—

> It is expedient that the Commissioners should be authorised to dredge the said river, and to carry out other works to assist and improve navigation, and it is necessary that further funds should be provided for those purposes.
>
> And whereas the Mayor, aldermen, and citizens of the city and county of Kingston-upon-Hull are, or claim to be, entitled to certain anchorage and jettage dues, known as the water bailiff dues, and levied upon shipping in the ports of Hull and Goole and elsewhere within or near the River Humber, and it is expedient that the power to collect and levy such dues should be transferred from the said Mayor, aldermen, and burgesses to the Commissioners, and that the Commissioners should have power to increase such dues, &c., &c.

Part II. relates to the extension of the powers of the Commissioners, and confers upon them authority to dredge and deepen the river where required, and to make piers and landing places along the river foreshore—presumably for the benefit of persons desiring to cross the river to Hull for market purposes. Opposition has already been evoked by this provision from those who hold that to erect wooden piers on the foreshore is a duty obviously not that of the Conservancy authorities, but of the landowners whose estates will be benefited thereby.

Proposed amendments of statntes governing the Conservancy is dealt with in the third division of the Bill. One of the sections proposes to abolish the office of Conservator, another provides for the deposit of plans defining the "river lines."

The Hull Corporation is very much alive to at least one part of the Bill, containing a proposal to deprive it of certain water bailiff dues. The anchorage and jettage dues which are levied on Hull and Goole shipping (Grimsby being exempt) have been appropriated by the Hull Corporation for centuries. The dues yield approximately £4,000 a year, and the balance, after paying £750 to the Conservancy, is applied to the relief of the rates of Hull. Under Sec. 30 of the Bill the Conservancy proposes to have the dues transferred to itself, and to double the amounts, if necessary. It is pointed out that their application to the purpose of the general relief of the rates of Hull, and the upkeep of the pier, and so on, is in direct variance with the findings of a Royal Commission in 1854—whose dictum has since been followed in all shipping legislation—that any dues derivable from shipping should be solely appropriated and used for the benefit of shipping.

An important section reads as follows:—

> The power to appoint a commissioner conferred by Sec. 18 of the River Humber Conservancy Act, 1852, upon any corporation or company interested in the Conservancy trade or commerce of the River Humber who shall become contributors to the extent of £100 per annum to the Conservancy Fund shall not be exercisable by any corporation or company becoming contributors after the passing of this Act.

Such a drastic proposal, if carried into effect, would disturb the existing constitution, and create the present contributing authorities practically a close corporation, despite any future developments in regard to local commerce. It is obvious how disastrous such a state of affairs would be. The present Commissioners number 32, with a preponderating influence in favour of Hull and Grimsby.

It is understood that the Parliamentary Committee of the Leeds Corporation has had the subject under consideration with a view to securing some representation on the commission. The committee is in communication with Sheffield, York, Bradford, and other West Riding towns affected, and a conference is suggested to discuss the advisability of securing representation upon a board by whose operations they have vital interests to be affected, and in whose deliberations they naturally feel they are entitled to a voice. The body should also certainly include representatives of the county councils. On more than one occasion the West Riding County Council has rendered valuable assistance in adjusting differences with reference to the repair of the Onse banks, and nothing but advantage to all concerned can result from the extension of the area of representation. Such an opportunity for securing needed reform will, we are certain, not be allowed to pass for want of the most strenuous efforts on the part of the authorities concerned.

PROPOSED NEW TOWN HALL FOR WALLASEY.

THE Wallasey Urban District Council has received 96 competitive designs for the proposed new public offices, and Sir William Emerson, the assessor appointed by the Council upon the nomination of the President of the Royal Institute of British Architects, has made his award in the following order, viz.:—1st, Messrs. Briggs and Wolstenholme and Arnold Thornely, 51, North John Street, Liverpool; 2nd, Mr. A. R. Jemmett and Mr. G. T. M'Combie, 11, Little College Street, Westminster, London; 3rd, Mr. W. H. Ashford (of Messrs. Ashford and Gladding), 90, New Street, Birmingham. The premium for the first selected design is £250, for the second £75, and for the third £50.

A RECENT poll of the burgesses of Morecambe on the question whether the Free Libraries Act should be adopted resulted as follows:—For, 655 votes; against, 883. In June, 1903, Mr. Andrew Carnegie offered £4,000 for a library, and the Mayor (Mr. J. R. Birkett) offered to provide the site.

NOW READY. Price 12/6.

THE IMPERIAL DIRECTORY
OF
ELECTRIC LIGHTING & ELECTRIC TRACTION WORKS,
1905.

Edited and Compiled by C. S. VESEY BROWN, M.Inst.C.E., M.I.E.E.

The Directory contains a List of the Works established under Statutory Powers in

GREAT BRITAIN & IRELAND, INDIA & the BRITISH COLONIES,
For the Supply of ELECTRIC LIGHTING, POWER, and TRACTION.

The Statistics given are divided into Three Parts:—

(a) Names and Addresses of all the Directors, Members of Municipal Committees, and the Principal Officers connected with each Works, together with their Postal and Telegraphic Addresses.

(b) Technical Description of each Works, showing the "System of Supply," detailed list of the Machinery, Storage Cells, Cables, Meters, &c., with which the Works are Equipped, giving the Makers' Names in each case, also the Prices Charged for Light, Power, and Traction.

(c) The Financial Results for the Last Completed Year of Working, showing Capital Expended, Revenue and Costs of Generation, &c., are Given in Detail.

LONDON: HAZELL, WATSON & VINEY, Ltd., 52, Long Acre, London, W.C.

Copies can also be obtained as under:—

BERLIN: F. F. W. STIELER, 149, Kurfursten Strasse.
INDIA: THACKER, SPINK & Co., Calcutta and Simla. THACKER & Co., Ltd., Bombay.
AFRICA: J. C. JUTA & Co., Cape Town, Port Elizabeth, Grahamstown, Johannesburg, Stellenbosch, Durban, and East London.
AUSTRALASIA: GEO. ROBERTSON & Co., Proprietary, Ltd., Melbourne, Sydney, Adelaide, and Brisbane.
CANADA: "Canadian Electrical News," Confederation Life Building, Toronto.

TRAMWAY TOPICS.

Action of the Midland Railway Company at Sheffield. Is it an Attempt to Hustle? Is a Tram Passenger Compelled to Show his Ticket? Legal Decision. A Start at Leith. An Assessment Appeal at Sunderland. Stretford and its Good Work.

Leith Construction.

THE work of installing the electric system of tramways was commenced at Leith this week. It will be carried out by the Corporation, the responsible officials being Mr. John More, C.E.; Mr. Peden Rntherford, electrical engineer; and Mr. Findlay, burgh surveyor; and a large staff of men, a considerable proportion of whom have been out of employment, have been engaged. The first section to be dealt with is Pilrig Street, upon which at present there is no tramway line, but which runs from the point where the Leith horse system and the Edinburgh cable cars meet in Leith Walk in a westerly direction to Bonnington. The section of the horse tramway between the latter place and Newhaven will then be replaced by the new lines, thns reaching to the extreme west of the town. A large quantity of material is already forward.

Sheffield Tramways Threatened.

THE Tramways Committee of the Sheffield Corporation naturally views with alarm the action of the Midland Railway Company in taking steps to promote a Bill in Parliament in the ensuing session to obtain powers to run motor omnibuses in connection with, and in extension of, its railway system or otherwise. The committee is sending its chairman, deputy-chairman, and the general manager to a meeting of the Municipal Tramways Executive Committee, to be held in London on the 25th inst., empowered to support the executive in opposing the Bill. The Corporation will also petition against the Bill.

West Cumberland Tramway Scheme.

A PROSPECTUS inviting public subscriptions for a West Cumberland tramway scheme will shortly be issued. At a meeting this week of representatives of the Whitehaven Town Council, Workington Town Council, Maryport Urban Council, and Cleator Moor District Council a letter was considered from a firm of solicitors acting in the matter of the West Cumberland Tramways Bill. The letter stated that the engineers of the company (Sir Douglas Fox and Partners) have completed detailed specifications and bills of quantities, and tenders have been received from the Brush Electrical Engineering Company, Limited, and other contractors for carrying out the work. After full discussion, the conference decided that the promoters be informed that it was unanimously agreed to refrain from giving assent to the Bill nnless the extension of two years for the commencement of work specified in Clause 3 of the Bill be altered to one year, and that in the event of the promoters agreeing to the amendment of the Bill the several authorities will be willing to give support to the Bill, if so required and arranged. Why a combination of these authorities do not carry out the work itself, if the tramways are a public necessity, passes the wit of man.

Defeated Bill at Bury.

OWING to the defeat of the Bury Tramways Bill, a portion of the Radcliffe tramways has had to be abandoned. This means the dropping of a proposal to couple up with Bolton. It was pointed out at this week's meeting of the Town Council that the proposals contained in the Bill had been before the Council and General Purposes Committee on several occasions, and not a single objection was raised. As a result, the Tramway Committee entered into certain heads of agreements with Bolton and Radcliffe. It was complained, on behalf of the Tramway Committee, that after anthorising the committee to enter into these agreements the Council, without any change in the circnmstances, on January 5 threw them over.

Stretford's Extending System.

THIS week a new dynamo erected at the Stretford electrical station was tested by the Lancashire Dynamo Company and worked satisfactorily. This additional plant in the Council's extension will give the necessary current for a proposed tramway to Chorlton-cum-Hardy, power for which will be provided by Stretford, and for the increased demand for private electric lighting. A large number of houses in the district have been wired by the builders for electric lighting. In the negotiations between the Trafford Park Electric Power Company and the District Council of Stretford a provisional agreement has been made by which the electric lighting in the residential portion of Trafford Park is now undertaken by the local anthority. The Electricity Committee, it may be mentioned, has finally recommended the Council to reduce the charge for electric light to private consumers from 6d. to 4½d. per unit. Provision has also been made to supply the southern tramway extension to Urmston whenever it comes into operation. The total cost of the additional plant is £6,500, and the Conncil's installation down to date has cost £42,000.

Sheffield Test Case—Decision Reversed.

IN the King's Bench Division on Thursday, the Lord Chief Justice, Mr. Justice Kennedy, and Mr. Justice Ridley had before them an appeal from a conviction nnder the Sheffield Tramways bye-laws and regulations, raised by way of a special case stated by the stipendiary magistrate for Sheffield. Mr. Muir Wilson said he was the appellant in person, and the appeal was by him against a conviction by the stipendiary magistrate, who fined him one shilling for not producing on June 11th, 1904, to one of the inspectors of the Sheffield Tramways, a tramway ticket. Bye-law No. 9 provided that each passenger, when requested to do so, shonld show his ticket to the officer of the Corporation. He was charged with not having done that. The bye-law stated that a passenger should also, when requested by the conductor, deliver up his ticket. He could not do that, but (pointing to the floor) said, "There it is." The bye-law said that in the case of failure to produce the ticket the passenger must pay the fare legally demanded for the distance travelled. The committee afterwards stuck at the back of the ticket a condition limiting the liability of the Corporation for injury to £25. The words were very clear, but the condition had never been authorised by any bye-law, and only by a resolution of the committee. He declined to take the ticket because the condition was one the committee had no right to put on the ticket.

The Judgment.

THE Lord Chief Justice said all they had to deal with was an information for unlawfully not delivering up his ticket when requested to do so. It was doubtful whether Mr. Wilson got the ticket in his hand. Mr. Wilson was anxious not to touch the accursed thing, and let it fall. Then he said to the conductor, "There is my ticket." That was not unlawfully refusing to give it up. If a lady requested the conductor to pick up her ticket, he hoped he would be polite enough to do so. He could not see that Mr. Wilson had committed the slightest unlawful act. He expressed no opinion about the condition on the ticket. He would not suggest that Mr. Wilson could increase or alter the liability of the Corporation by not taking the ticket, but he saw nothing to lead to the conclusion that he unlawfully refused to deliver the ticket. Under the circumstances the appeal must be allowed and the summons dismissed with costs in the Court below. The other judges concurred, and the order was made accordingly.

Hyde and Bredbury.

THE arrangements for working the tramway traffic between Hyde and Bredbury were a few days ago considered at a conference between Mr. Garcke and Mr. Kitchener (directors of the Ashton, Oldham, and Hyde Tramway Company) and the Stockport Tramways Committee. Mr. Garcke said the existing arrangement was not satisfactory to the company, because the Stockport Corporation trams ran through a better district in Hyde than the company ran through in Bredbury, and therefore to divide equally was unfair, and a loss to the company. The service of cars in Bredbury was too good. The company thought that each party should run over its own lines only, and that the passengers should change cars at Pole Bank, each authority taking the profits on its own lines only. It was arranged to exchange figures, showing the cost of working, &c., and to hold a further meeting.

A Sunderland Assessment Appeal.

AT a meeting of the Assessment Committee of the Sunderland Board of Guardians, the town clerk (Mr. Francis M. Bowey), the borough electrical and tramways engineer (Mr. J. F. C. Snell), and the borongh accountant (Mr. J. Haswell Brown), attended for the purpose of appealing against the last assessment of the tramways system and the electric light undertaking. The former assessment of the tramways system was under £5,000, and it has been increased to £11,550 nett; while the new assessment of the electric light undertaking has been raised to £8,055, being a considerable increase. The Assessment Committee decided to go into the question of the tramways rating, but declined to consider the assessment of the electricity department.

The Dispute.

AS to the tramways undertaking, the matter in dispute was the amount which should be deducted, the Corporation claiming certain deductions which it stated were usual for tramway and railway undertakings. The Assessment Committee contended that the reductions asked for were excessive and unreasonable, and that the increase in the assessment was commensurate with the extension of the system. The Corporation asked that the amount of the assessment should be reduced to £5,661, or by more than half, but the committee would only concede a reduction of £550, reducing the amount to £11,000. After a protracted meeting, no further progress was made, and it was intimated that the Corporation did not think the redncton offered sufficient, and they would appeal to Quarter Sessions.

Presentation to a Manchester Official.

AT a smoking-concert held in Manchester a presentation was made to an electrical engineer to the Corporation (Mr. A. A. Blackburn), who is taking up a more responsible position under the Belfast Corporation. Mr. Blackburn has filled the position as resident engineer at the Queen's Road depot for the past 2½ years. The presentation was in the form of an illuminated and framed address, along with a beautiful gold-mounted umbrella, and was the outcome of a voluntary snbscription among the members of Nos. 1 and 5 branches of the Association of Tramway and Vehicle Workers. It was made on their behalf by Councillor G. T. Jackson, J.P., general secretary of the Association, who said that during the whole time Mr. Blackburn had held the position there had never been one single complaint from the officials of the branches of harsh treatment. Further eloqnent testimony to his abilities and courtesy was given by presidents of various branches, and suitably responded to by Mr. Blackburn.

Tramways at Erdington.

THE Erdington District Conncil has had a difference with the local tramway company about the running of a single line in a narrow part of one of the main streets. At the last meeting of the Council the Tramways

Committee reported it had arranged its differences with the tramway company. It had been agreed that the Council's insistence on this point should be adhered to, and that the claim of the tramway company to a passing-place should be abandoned. It was decided to advertise for tenders for Tramway No. I. Everything will then be in readiness for the trams, but it was explained at the meeting that they will not be constructed till the new water mains have been laid, thus avoiding the inconvenience of having the streets up twice.

❦ ❦ ❦

Leicester Employees' Sick Fund.

A PLEASANT evening was spent this week by the Leicester Corporation tramways employees, when they held their annual supper in connection with their sick club. It is eleven years since this club was founded by the tramways manager (Mr. A. F. Lucas). At that time there was a balance in hand of £31, but to-day it is £180 8s. 10d. There are now 235 members. The general manager occupied the chair at this annual gathering, and amongst those present were the chairman of the Tramway Committee, Councillor Flint; vice-chairman, Alderman T. Smith; Councillor Collier; electrical engineer, Mr. T. R. Smith, A.M.I.E.E.; traffic superintendent, Mr. W. Evans; and many others. There was a lengthy toast list. Excellent songs and sketches were rendered during the evening.

❦ ❦ ❦

Parcels-Carrying Routes at Manchester.

THE Manchester Tramways Committee has for a considerable time had under consideration various necessary matters of detail connected with a new parcels-carrying scheme. This week the committee met and adopted a scale of charges for parcels, inclusive of the charge for delivery, for two areas, the "inside" and the "outside." The "inside" area will be the whole of the city of Manchester, the borough of Salford, and the township of Stretford as far as Warwick Road. The "outside" area will include the suburbs which are around the district thus outlined and within the tramway circuit. Parcels will be despatched to all parts covered by the scheme at intervals of not more than a quarter of an hour. It is expected that the scheme will be put in operation next month.

The charges will be for the inside area:—

Not exceeding 14lb.	2d.
Not exceeding 28lb.	3d.
Not exceeding 56lb.	4d.
Not exceeding 112lb.	6d.

For the outside area the charges will be:—

Not exceeding 14lb.	3d.
Not exceeding 28lb.	4d.
Not exceeding 56lb.	6d.
Not exceeding 112lb.	8d.

❦ ❦ ❦

Motor Omnibuses.

THE Manchester Tramways Committee this week also decided to run motor 'buses to Cheadle, Northenden, and Chorlton-cum-Hardy. At present horsed omnibuses are run to each of these places, meeting the tramcars at convenient points, and these conveyances are much used, especially in summer. The committee will provide at first two motor 'buses for the Northenden route. This connects with the Palatine Road service of cars at the end of the tramway line hard by the Midland Railway bridge at Withington. The committee considered the question of providing private conveyances for its principal officials. At present it has as many as four in use, and it was decided to discontinue them, but to substitute two motor cars.

❦ ❦ ❦

Liverpool and Halfpenny Fares.

MR. D. M. STEVENSON writes as follows from 12, Waterloo Street, Glasgow:—"Dear Sir,—I cannot make out how Mr. Bellamy arrives at the figures you give under 'Tramway Topics'—'Workmen's Fares'—in last week's issue—'the average passenger charge in Liverpool is the lowest in the kingdom, ·42d. per mile, Glasgow coming second with ·45d.' From our time-table, which I have in my hand, I make out that the Glasgow citizen can travel a mile for ·43d., taking the average of all the fares, but what he can do as a maximum has very little to do with the case. The real question is, what amount do passengers actually pay on the average? The Liverpool figures seem to me to bring out an average of 1·11d., while in Glasgow the average is only ·91d., so that the Liverpool passengers pay 20 per cent. more than the Glasgow ones. If the Liverpool tariff were in operation here, and the same number of people travelled as at present, our revenue would be increased by £157,000 per annum. Of course, the 57,501,083 passengers who travelled last year for ½d. would have had to pay 1d." Perhaps Mr. Bellamy will further deal with the matter for the information of our correspondent?

❦ ❦ ❦

"Motor-Car Trams."

"STREATHAM," who has read Dr. Robinson's article on Motor-Car Trams, asks how he arrives at "the alleged saving of £800,000 by the adoption of motor-car trams, instead of electrifying, in North London." Dr. Robinson says to electrify on the conduit system would cost £1,289,000. Now, the purchase of 600 motor-cars, at his own price (£1,300 each) would amount to £780,000, and as a motor-car would only carry 32 passengers, compared with 66 on an electric car, he would require at least 1,200 motor-cars, entailing an expenditure of £1,560,000 for cars alone, or £250,000 more than the far superior electric tramway.

MUNICIPAL ELECTRIC TRAMWAY RETURNS.

Undertaking.	Date of Opening.	Length of Route.	Total Length Track.	Year ends.	Last Weekly Return.		Corresponding Week 1904.		Total Receipts for Year.	
		Miles	Miles		Receipts.	Passengers.	Receipts.	Passengers.	1905.	1904.
Aberdeen	Dec. '99	2·50	5	May 31	1,093	—	1,072	—	49,919	44,122
Ayr	Sept. '01	6	8	—	174	52,255	164	47,056	11,732	11,198
Birkenhead	Feb, '01	13·52	23·53	March 31	1,039	218,738	1,045	219,873	46,375	47,145
Blackburn	Mch. '99	13½	13½	March 25	—	—	—	—	—	—
Blackpool	Oct. '84	3	6	March 31	298	—	289	—	44,984	38,927
Bolton	Nov. '99	25	40	March 31	1,662	364,301	1,616	352,892	81,933	81,589
Bournemouth	July '02	11·8	18·2	March 31	840	159,844	848	160,117	53,445	17,637
Bradford	July '98	53¾	95½	March 31	3,729	—	3,366	—	169,463	142,392
Brighton	Nov. '01	6·5	11·75	—	724	164 857	763	183,223	—	—
Burnley	Mch. '02	10·60	10·60	March 31	1,027	187,291	836	152,145	—	—
Cardiff	Dec. '01	16	30	March 31	—	—	—	—	—	—
Darwen	Oct. '00	4·5	4·25	Dec. 31	—	—	—	—	—	—
Dover	Sept. '97	3·5	4·5	March 31	164	42,223	164	42,393	9,831	10,009
Dundee	July '00	12·56	23·1	March 31	—	—	—	—	—	—
East Ham	June '01	6·6	10·75	March 31	627	236,440	577	220,643	31,347	29,661
Glasgow	Oct. '98; Extens., April '01	72½	143	May 31	13,995	3,690,559	13,140	3,477,495	512,103	487,898
Halifax	—	—			2,209	530,160	2,160	518,400	68,008	61,151
Huddersfield	Feb. '01	—	32	March 31	—	—	—	—	—	—
Hull	July '99	12·25	25	March 31	2,058	493,927	2,004	481,093	96,579	85,660
Ilford	Mar., '03	6·5	10·5	—	327	88,059	305	—	19,411	18,458
Ilkeston	May, '03	3·5	4	—	103	27,389	119	30,888	—	—
Leeds	Aug. '97	37	71	March 25	5,360	—	4,797	—	257,463	243,176
Liverpool	Nov. '98, June '99	66	114	Dec. 31	9,560	2,081,452	9,334	2,027,558	39,041	33,073
L.C.C.*	1897, Jan. '99	—	47½	March 31	12,048	—	8,848	—	550,060	427,754
Manchester	June '01	72	131·50	March 31	11,588	2,373,425	10,692	2,198.313	536,652	513,329
Nelson	Mch. '02	2·75	3·5	—	111	33,602	100	29,172	5,247	3,906
Newcastle	Dec. '01	17	36	—	3,661	825,927	3,533	798,701	—	—
Oldham	Dec. '00	18	28	—	1,393	277,155	1,078	235,458	56,270	52,511
Portsmouth	Sept. '01	15	28	—	1,294	286,759	1,237	275,510	83,022	76,596
Reading	July '03	7½	13⅜	—	494	116,184	490	114,488	27,583	—
Rotherham	Jan. '03	7½	—	March 25	386	87,899	391	86,758	17,324	14,777
Salford	Oct. '01	32½	59½	March 31	3,869	735,118	3,638	709,360	180,360	171,608
Sheffield	Sept. '99	32½	59½	March 25	4,444	1,181,320	4,201	1,112,925	209,559	204,171
Southampton	Sept. '98	9⅜	16⅜	March 31	719	135,400	705	137,965	41,882	44,224
Southend-on-Sea	July '01	6·85	—	March 31	—	—	—	—	—	—
Sunderland	July '00	12·27	23	—	1,120	—	1,074	—	55.835	54,372
Wallasey	Mch. '02	9	10·5	March 31	646	123,677	585	111,905	32,916	30,726
Walsall	Jan. '04	12½	13½	Dec. 31	448	80,474	437	80,276	2,137	2,338
West Ham	Feb. '04	9·78	12·98	—	1,052	307,701	—	—	47,264	—
Wolverhampton	April '02	11·258	16·848	March 31	668	145,489	395	79,292	—	—

* Also includes the horse lines.

DICK, KERR & Co., LIMITED,

ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Contractors for Municipal Lighting and Tramway Schemes.

Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

The Longer you use

THE EMPIRE TYPEWRITER

The Better you will Like it.

Price only £13 2s. 6d.

USERS:—

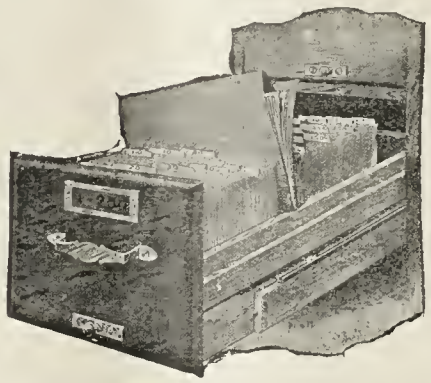
His Majesty's Government . . .	630
Harrod's	44
C. P. Railway	475

TRY ONE. *TRIAL FREE.*

The EMPIRE TYPEWRITER CO., Ltd.,

77, QUEEN VICTORIA STREET, E.C.

Have you ever experienced the charm of being able to call for the entire correspondence of a customer and have it INSTANTLY handed to you in its right order?



This is what the

Referee Vertical Filing System does.

Why not Adopt it in your Office?

Full particulars will gladly be sent on application to

Partridge & Cooper, Ltd.,

191-192, Fleet Street,

London, E.C.

Official Advertisements.

BOROUGH OF SOUTHEND-ON-SEA.

APPOINTMENT OF SHIFT ENGINEER.

THE Council of the Borough of Southend-on-Sea are prepared to receive Applications for the Appointment of SHIFT ENGINEER in their Electricity Station, at a salary of £2 2s. per week.

Candidates must have had experience in the running of a continuous current three-wire system, with batteries, and also of traction plant.

Applications must be accompanied by copies of not more than three testimonials (which will not be returned), and must reach the undersigned on or before 12 o'clock noon, Wednesday, 15th February, 1905.

W. E. J. HEENAN,
Borough Electrical Engineer
and General Manager.

Corporation Electricity Works,
London Road, Southend-on-Sea.
7th February, 1905.

BOROUGH OF SOUTHWARK.

ERECTION OF STABLES, GREENMORE WHARF.

THE Borough Council invite TENDERS for the ERECTION of STABLES on their Greenmore Wharf at Banks do, S.E.

Plans and specifications may be seen, and forms of tender and further particulars obtained, between the hours of 10 a.m. and 5 p.m., on application to Mr. Arthur Harrison, Borough Engineer, Town Hall, Walworth Road, S.E., upon payment of a deposit of £5, which will be returned on receipt of a bona-fide tender for the work.

The person whose tender is accepted will be required to enter into a contract, with two sureties, for the due performance thereof.

The contractor will be required to pay all workmen in his employ the current trade union rate of wages, and to observe trade union conditions of labour, and not assign or under-let, or make a sub-contract with any person or persons for the execution of any part of the work.

The Council does not bind itself to accept the lowest or any tender.

Tenders, endorsed "Tender for the Erection of Stables," to be sent to my Office not later than noon on Wednesday, the 1st March, 1905.

J. A. JOHNSON,
Town Clerk.

Town Hall,
Walworth Road, S.E.
9th February, 1905.

THE ROYAL SANITARY INSTITUTE.

LECTURES AND DEMONSTRATIONS TO SANITARY OFFICERS, MEAT INSPECTORS, AND OTHERS.

THE Thirty-ninth Course of LECTURES will be held at the PARKES MUSEUM, Margaret Street, W., commencing MONDAY, FEBRUARY 13th.

The course includes, in addition to the Lectures, a number of practical demonstrations and inspections at places illustrative of sanitary practice and administration.

Full particulars can be obtained at the Offices of the Royal Sanitary Institute, Margaret Street, London, W.

LIGHTNING CONDUCTORS.

J. LEWIS,

5 and 6 Great Winchester Street, London, E.C.

TELEPHONE No. 3053 CENTRAL.

THE BEST JUDGES OF CIGARS

Now obtain their supplies at

BENSON'S, 61, St. Paul's Churchyard, London.

Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

Ready Tuesday next.

Ready Tuesday next.

1905

1905

THE MUNICIPAL YEAR BOOK

THE MUNICIPAL YEAR BOOK

OFFICIALLY REVISED.

BIGGER AND BETTER THAN EVER

AN ENCYCLOPÆDIA OF CIVIC LIFE.

Ready Tuesday next.

Ready Tuesday next.

1905

1905

THE MUNICIPAL YEAR BOOK

THE MUNICIPAL YEAR BOOK

Nearly 700 Pages.

Demy 8vo, cloth gilt, 3s. 6d. By post 4s.

LONDON: EDWARD LLOYD, LIMITED,
12, SALISBURY SQUARE, E.C.

Appointments Vacant.

Latest date for applications in parentheses.

Assistant Clerk. £80. J. A. Battersby, Clerk to Guardians, Union Offices, Clerkenwell Road, E.C. (February 18.)

Assistant House and Drill Mistress. £25. G. Herbert Lough, Clerk to Guardians, Upper North Street, Poplar. (February 16.)

Attendant (Head Male), £80. Matron, £80. W. G. Austin, Guildhall, Westminster, S.W. (February 24.)

Assistant Borough Surveyor. £150. G. H. Kite, Town Clerk, Taunton. (February 13.)

Borough Accountant. W. Tilly, Town Clerk, Town Hall, Morecambe. (February 28.)

Boys' Attendant. £18. J. R. Browne, Guardians' Offices, Old Gravel Lane, E. (February 14.)

Caretaker of School. £1 10s. per week. Clerk of London County Council, Spring Gardens, S.W. (February 14.)

Chemist. The Chairman, Works Sub-committee of Gas Department, Council House, Birmingham. (February 20.)

Clerk (Third Assistant), £80. Chief Inspector, Public Health Department, 2, Paradise Row, Cambridge Road, Bethnal Green, N.E. (February 20.) See advt. in this issue.

Clerk of Works (Erection of School). £3 per week. A. H. Aitken, Town Clerk, Accrington. (February 15.)

Clerk of Works. E. Wadams, Union Offices, Evesham. (February 17.)

Deputy Store Superintendent. £300. Clerk of London County Council, Spring Gardens, S.W. (February 13.)

Drainage and Buildings Inspector. £150. W. S. Clutterbuck, Town Clerk, Town Hall, Reading. (February 15.)

Draughtsman (Furniture) and Estimating Clerk, £3 a week; Inspector of Furniture, 50s. a week; Foreman of Cabinet Makers, 50s. a week; Working Machine Foreman, 50s. a week: Assistant to Keep Timber, &c., 40s. a week. Clerk of London County Council, Spring Gardens, S.W. (February 20.)

Engineering Assistant. £500. Clerk of London County Council, Spring Gardens, S.W. (February 20.)

Fireman. 25s. a week. F. D. Askey, Town Clerk, Southwood Lane, Highgate. (February 20.)

Gasworks Foremen. £130. H. Hock, City Gasworks, Saltley, Birmingham. (February 25.)

Harbour Engineer. £200. T. J. Mercer, Harbour Office, Sligo. (February 15.)

Inspector of Nuisances, £80; Junior Clerk, £30. A. Hellard, Town Clerk, Town Hall, Portsmouth. (February 14.)

Inspector of Nuisances (Assistant). £120. J. W. Benton, Council Office, Ilford. (February 14.)

Inspector of Nuisances. £130. E. J. Gowen, Clerk to District Council, Town Hall, Croydon. (February 15.) See advt. in this issue.

Inspector of Nuisances. £50. Edward Knightley, Council's Offices, Newhaven, Sussex. (February 15.)

Inspector of Nuisances (Assistant). £100. J. E. H. Rogers, 7, Dew Street, Haverfordwest. (February 20.)

Inspector of Weights and Measures. £120. W. W. Greenhalgh, Town Clerk, Wakefield. (February 22.)

Junior Clerk in Borough Accountant's Department. £70. James Wilson, Town Clerk, St. Marylebone Town Hall, W. (February 20.) See advt. in this issue.

Labour Master (Assistant). £25. E. Pitts Fenton, Guardians' Offices, 283, Tooley Street, S.E. (February 17.)

Laundry Superintendent (Assistant). £25. Fred. E. Hilleary, Union Workhouse, Leytonstone. (February 15.)

Librarian. £100. A. L. Houlder, Council Office, Southall. (February 15.)

Male Attendant on Imbeciles, £30; Female Attendant, £25. C. F. Chamberlin, Union Offices, Burton-on-Trent. (February 15.)

Matron (Assistant). £25. P. Lovegrove, Clerk to Guardians, 3, Park Street, Windsor. (February 25.)

Male Caretaker of Children. W. S. V. Cullerne, Clerk to Guardians, Commercial Road, Guildford. (February 24.)

Master and Matron. £140 and £70. J. J. Simpson, Clerk to Guardians, St. Peter's Hospital, Bristol. (February 29.)

Master and Matron. £55 and £45. W. B. Trick, Union Office, St. Thomas, Exeter. (February 17.)

Nurses. £12. E. Pitts Fenton, Clerk to Guardians, 283, Tooley Street, S.E. (February 23.)

Nurse (Assistant). £28. F. Horner, Union Offices, Newton Abbot. (February 14.)

Nurses (Charge). £35. J. H. Wild, Clerk to Guardians, Harley Street, Hull. (February 13.)

Nurse. £30. R. V. Dickinson, Union Offices, Chester-le-Street. (February 14.)

Nurse (Head), £30: Assistant Resident Male Night Nurse, 12s. per week; Night Attendant, £25. Harry List, Union Offices, Mayday Road, Thornton Heath. (February 18.)

Relieving Officer, &c. £100, &c. W. A. Hatton, Clerk to Guardians, Atherstone. (February 16.)

Secretary of Surveyor's Institution. £600. P. Currey, 37, Norfolk Street, Strand, W.C. (February 15.)

Shift Engineer for Electricity Station. W. E. J. Heenan, Borough Electrical Engineer, London Road, Southend-on-Sea. (February 15.) See advt. in this issue.

Superintendent and Matron (Married Couples). £70 and £45. R. J. Kent, Clerk to Guardians, 19, Tower, Ipswich. (February 16.)

Surveyor of Highways and Inspector of Nuisances. £120. E. P. Crowdy, District Council Offices, Faringdon, Berks. (February 13.)

Tenders Wanted.

Latest date for sending in tenders in parentheses.

Chemists', Grocers' and Bakers' Goods. W. H. Snow, Town Clerk, Southend-on-Sea. (March 1.) See advt. in this issue.

Contracts. J. A. Johnson, Town Clerk, Town Hall, Walworth Road, S.E. (February 15). See advt. in this issue.

Contracts—Goods and Materials. James Paton, Borough Engineer, Municipal Offices, Plymouth. (February 18) See advt. in this issue.

Contracts—Works and Materials. F. D. Askey, Town Clerk, Southwood Lane, Highgate, N. (February 20.)

Contracts. A. F. Kidson, Town Clerk, Folkestone. (February 15.)

Contracts—Works, Materials, &c. A. P. Johnson, Town Clerk, Haverstock Hill, N.W. (February 15.)

Contracts—Goods and Works. H. Hargreaves, Public Offices, Barking. (March 3.)

Contracts for Supplies. Fred B. Senior, Town Clerk, Town Hall, Richmond, Surrey. (February 18.)

Contracts for Supplies. C. Sydney Watson, Clerk of District Council, Town Hall, Walthamstow. (February 24.) See advt. in this issue.

Contracts for Supplies. E. J. Gowen, District Council Offices, Town Hall, Croydon. (February 16.) See advt. in this issue.

Contracts for Materials. A. Blasdale Clarke, Town Clerk, Bacup. (February 15.)

Contracts—Works and Materials. R. H. S. Butterworth, Clerk to District Council, Council Offices, 12, Queen's Road, Wimbledon. (March 4.) See advt. in this issue.

Dust Carts, &c. Thos. Hunter, W.S., Town Clerk, City Chambers, Edinburgh. (March 10.)

Electrical—Dynamo, Boiler, and Switchboard. T. B. Laing, Town Clerk, Council Chambers, Leith. (February 15)

Electrical — Three-phase High Tension Machinery. F. M. Bowey, Town Clerk, Town Hall, Sunderland. (February 24.) See advt. in this issue.

Electrical—Condensing Plant, Boilers, &c. R. M. Prescott, Town Clerk, Town Hall, Fulham. (February 22.)

Electrical—Arc Lamp Carbons. H. Campbell, Town Clerk, City Hall, Dublin. (February 23.)

Electrical—Tramway Rail Booster. R. Hyde, Town Clerk, Town Hall, Stockport. (February 15.)

Electrical—Motor Generators and Balancers. W. H. Talbot, Town Clerk, Town Hall, Manchester. (February 21.)

Electricity and Tramway Stores. P. P. Wheelwright, Borough Electrical Engineer, Electricity Works, Blackburn. (February 16.)

Engineering Assistant. £500. The Clerk of the London County Council, Spring Gardens, S.W. (February 20.)

General Stores. W. H. Snow, Town Clerk, Southend-on-Sea. (March 2.) See advt. in this issue.

Hospital Extensions. J. Strachan, Clerk to District Council, Harrow-on-the-Hill. (February 18.)

Jersey Gravel. H. W. Cook, Public Offices, Egremont, Cheshire. (February 20.)

Loans of £50 and Upwards. Haswell Brown, Borough Accountant, Town Hall, Sunderland. See advt. in this issue.

Loans of £2,000 and £1,000. H. W. Stephens, Clerk to District Council, High Street, Winchcomb R.S.O., Gloucester. (February 16.)

Materials, &c. F. C. Morrison, 46, High Street, Reigate, Surrey. (February 15.)

Municipal Buildings—Competitive Designs Invited. H. J. Smith, Town Clerk, Town Hall, Kennington Green, S.E. (March 30.)

Pipes, Castings, &c. J. Haslam, Town Clerk, Bury. (February 14.)

Printing and Stationery. F. D. Askey, Town Clerk, 99, Southwood Lane, Highgate, N. (February 20.) See advt. in No. 626.

Printing and Stationery. J. Bell, Clerk to District Council, Surbiton. (February 20.)

Printing, Stationery, &c. C. Sydney Watson, Clerk of District Council, Town Hall, Walthamstow. (February 24.) See advt. in this issue.

Pump, Deep Well. N. Appelbee, Borough Electrical Engineer, Ashton-under-Lyne. (February 15.)

Pumping Machinery. J. Dewhirst, Avenue Chambers, Chelmsford. (February 24.)

Railway Wagons. R. Hyde, Town Clerk, Town Hall, Stockport. (February 15.)

Reservoir. Sir Samuel Johnson, Town Clerk, Guildhall, Nottingham. (February 13.) See advt. in No. 623.

Reservoir Tank, &c. D. J. Purcell, Council Office, Naas, Ireland. (March 1.)

Road Materials, Cartage, &c. F. J. Wood, County Surveyor, County Hall, Lewes. (February 28.)

School—Competitive Designs Invited. Premiums £50, £30, and £20. Hy. Hamer, Town Clerk, Town Hall, Preston. (February 28.)

Schools—Designs Invited. Premiums £50 and £25. C. G. Watkins, Education Office, Aylesbury. (February 28.)

Sewage Tanks, &c. Town Clerk, Wrexham (March 1.)

Sewers and Sewage Disposal Works. J. Griffith, Town Clerk, Town Hall, Newcastle-under-Lyne. (February 22.)

Sewers. R. W. Staniland, Town Clerk, Municipal Buildings, Boston. (March 7.)

Sewering, Paving, &c. J. Haslam, Town Clerk, Municipal Offices, Bury. (February 14.)

Sewerage Works. W. R. Parrott, Clerk to Rural District Council, High Street, Stony Stratford. (February 28.)

Supply of Materials. A. Varley, Town Clerk, Town Hall, Colne. (February 13.)

Stationery. Leonard Potts, Town Clerk, Council Office, Poplar. (February 26.) See advt. in No. 627.

Steam Roller. G. R. Shorto, &c., Town Clerk, Exeter. (February 15.)

Tramways—Construction of. J. Moore Hayton, Town Clerk, Court Buildings, South Shields. (February 20.)

Tramways Contracts. G. W. Bailey, Town Clerk, Bournemouth. (February 15.)

Vans for Conveying Infected Articles. Vivian Orchard, Town Clerk, 20, Tanners Hill, Deptford. (February 13.) See advt. in No. 626.

Vertical Boiler, Washington Lyon Disinfector, and Laundry Apparatus for Sale. Stanley W. Ball, Public Offices, Dyne Road, Kilburn. See advt. in this issue.

Water Supply Contracts. Thomas Bates, Clerk to District Council, Glemsford, Suffolk. (March 1.)

TO CONTRACTORS.

IT WILL PAY YOU

to Subscribe to

THE MUNICIPAL JOURNAL.

Office: 12, SALISBURY SQUARE, LONDON, E.C.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CARTOONS.
Specialists in Photo.-Litho.
Photo-Copies, and Sun Prints,
VACHER & SONS. Westminster.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS.
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

ROAD SCAVENGER.
F. COWLEY, C.E.,
Launceston, Cornwall.

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

Results of Tenders.

East Cowes, Isle of Wight.—To supply one 50 B.H. Power gas engine and suction gas plant, for the Urban District Council. W. Brown, Tottenham, Engineer.

Acme Engine Co.	£444 3 0
R. Cundall and Son (accepted)	464 0 0
Paisley and Welch	475 0 0
National Gas Engine Co.	482 0 0
Dudbridge Iron Works	487 6 1
Sheffield Engineers	500 0 0
Tangeys, Limited	505 0 0
Grice and Sons, Limited	508 3 0
Capel and Co.	512 0 0
Dougills, Limited	513 0 0
Railway and General Engineering Co.	520 0 0
Pollock White	529 0 0
Campbell Gas Engine Co.	530 0 0
Dynamic Gas Co.	533 0 0
Fielding and Platt	603 0 0
Andrew and Co.	618 8 0
Kynoch, Limited	655 0 0
S.E. Engineering Works	656 12 0
Crossleys, Limited	710 0 0
Humbolt Engineering Co.	882 0 0
Power Plant Co.	900 0 0
L. Soest	1,055 0 0

East Cowes, Isle of Wight.—To supply and fix one set of 8in. three-throw pumps for the Urban District Council. W. Brown, Tottenham, engineer.

Campbell and Co.	£516 0 0
Duke and Ockenden (accepted)	525 0 0
C. Dale	538 0 0
Hunter and English	575 0 0
Dougills, Limited	583 0 0
E. White	584 0 0
Owens and Co.	651 0 0
J. Thom	685 17 9
Thornton and Crebbin	707 0 0
H. and W. Davis	745 0 0
Tangeys, Limited	745 0 0
Gimson and Co.	771 0 0
Robt. Warner and Co.	880 0 0
Hayward, Tyler and Co.	895 0 0
Lee and Co.	912 10 0
Dynamic Co.	1,066 0 0
Mallpens	1,084 9 0
W. H. Bailey and Co.	1,200 0 0

East Cowes, Isle of Wight.—For taking out and refixing old pumps in new well, for the Urban District Council. W. Brown, Tottenham, engineer.

Campbell and Co.	£200
Duke and Ockenden (accepted)	210
H. and W. Davis	230
Owens and Co.	234
Gimson and Co.	284
E. White	289
Robt. Warner and Co.	350
Hayward, Tyler and Co.	533

East Cowes.—For the erection of a water-tower and tank:—Brading and Sons, £1,250 (accepted).

East Cowes.—For the erection of an engine-house:—Brading and Sons, £710 (accepted).

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment.
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

BONDS are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary SHIRLEY FUSSELL.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM,
Edited by ROBERT BLATCHFORD.

You should read **"THE CLARION"** for reliable information as to

MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century,

You Must Read **"THE CLARION."**

Send for specimen copy to **"THE CLARION"** Office,
72, FLEET STREET, LONDON, E.C.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION
IS FAR IN EXCESS
OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL, 12, SALISBURY SQUARE, LONDON.

D. STEWART & CO.,

General Drapery, Clothing and Bedding Contractors

WITH COUNTY COUNCILS, BOARDS OF GUARDIANS, COMMITTEES OF ASYLUMS, HOSPITALS AND SCHOOLS.

Blankets
Bedsteads
Bedding
Calicoes
Carpets
Clothing
Dress Materials
Flaxens
Flannels
Furniture
Flocks
Haberdashery
Hessians
Hollands
Hosiery
Linoleum
Pillow Linens
Prints
Shirtings
Sheetings (Cotton)
Sheetings (Linen)
Table Linens
Towels
Towelling
Waterproof Sheeting
Window Holland

D. S. & Co. at present hold Contracts with many of the largest Institutions in London and the Provinces.

TENDERS INVITED.

D. STEWART & CO., 16, STAINING LANE, GRESHAM ST., LONDON, E.C.

Telegraphic Address—"Centralize, London." Telephone—521 Bank.

To Municipal Authorities, Public Institutions and Companies.

MIDDLETON BROS. respectfully request that they may be favoured with Forms of Tender for

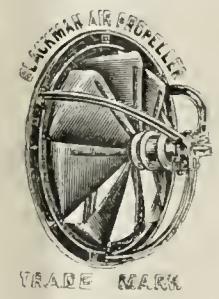
OILS, PAINTS, COLOURS, VARNISHES, LEAD and GLASS, LUBRICANTS, SOAPS and CHANDLERY, OILMENS' SUNDRIES, and DISINFECTANTS.

MIDDLETON BROS.,

10, 11, & 186, ST. GEORGE STREET, E. (London Docks),
OIL & COLOUR MERCHANTS, PAINT MANUFACTURERS, &c.

Contractors to H.M. Government, Boards of Guardians, Railway Companies, &c., &c., for over 30 years.

BLACKMAN



ELECTRIC FANS.

GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

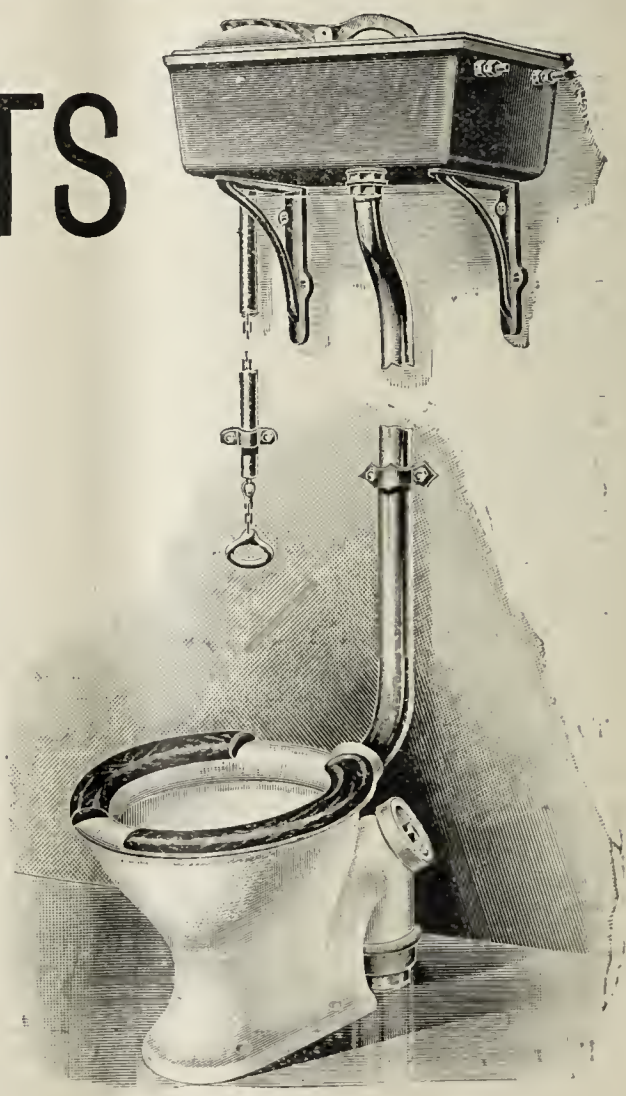
DOULTON'S

SPECIAL

SCHOOL CLOSETS

FOR

INFANTS AND CHILDREN.



These Closets are only 13½in. high, and are specially suitable for children. The pan and trap is in one piece, with brass inspection cap, and cleanses well with a 2-gallon cistern. It is made in two patterns, one with fixed side pieces, the other with lugs to take a hinged seat. Also made with side outlet.

DOULTON'S SPECIAL LIST OF SANITARY FITTINGS SUITABLE FOR SCHOOLS SENT ON APPLICATION.

Every description of High-class Sanitary Fittings for Mansions, Hotels, Clubs, Hospitals, Schools, and Public Buildings of all kinds to be seen in action at Showrooms—

ALBERT EMBANKMENT, LAMBETH, LONDON, S.E.

Printed and Published by EDWARD LLOYD, Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE
MUNICIPAL JOURNAL

No. 629.—Vol. XIV. FRIDAY, FEB. 17, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. One Penny.

Official Advertisements.

COUNTY BOROUGH OF DEVONPORT.

TREASURER'S DEPARTMENT.

APPLICATIONS are invited for the Appointment of BOOKKEEPER, at a salary of £110 per annum. Candidates must have a good knowledge of municipal accountancy, and be engaged in a Treasurer's or Accountant's Department of a municipality at the present time. Age 23 to 30.

The selected candidate will be required to reside within the borough.

Applications, in own handwriting, stating age, present occupation, and experience, accompanied by copies of not more than three recent testimonials, to be sent in by the 28th February. 1905, to the undersigned, endorsed "Bookkeeper."

H. J. HOARE,
Borough Treasurer.

Devonport.
10th February, 1905.

BOROUGH OF SOUTHWARK.

APPOINTMENT of ASSISTANT PRIME COST CLERK AND SHORTHAND CLERK IN THE BOROUGH TREASURER'S DEPARTMENT.

WANTED, in the Office of the Borough Treasurer's Department, an ASSISTANT PRIME COST CLERK. Salary £80, rising by £10 annually to £100. Applicants must be experienced in keeping prime cost accounts.

Also a SHORTHAND and TYPEWRITING CLERK, not under 18 years of age. Commencing salary £54 12s. per annum.

Applications to be made in candidate's own handwriting, on forms to be obtained from the undersigned, accompanied by copies of three testimonials of recent date, endorsed "Clerkship, Treasurer's Department," to be sent to me not later than noon on Thursday, the 23rd instant.

Canvassing will disqualify.

By order.

J. A. JOHNSON,
Town Clerk.

Town Hall.
Walworth Road, S.E.,
13th February, 1905.

COUNTY BOROUGH OF SUNDERLAND

THE Corporation are prepared to receive LOANS of £50 and upwards on security of the Rates of the Borough, at six months' notice or for a fixed period.

For further particulars apply to Haswell Brown, Borough Accountant, Town Hall.

Sunderland.
13th December, 1904.

PROMOTION impossible without good Penmanship. Rapid tuition. Send stamp for Prospectus No. 18. N. Broadbent (Prizeman and Medallist), Alston's College, Burnley.

Official Advertisements.

JOHANNESBURG MUNICIPALITY.

DEPUTY TOWN CLERK.

APPLICATIONS are invited for the post of DEPUTY TOWN CLERK for the Municipality of Johannesburg, at a commencing salary of £800 per annum.

Applicants to be barristers or solicitors.

The successful applicant must be prepared to take up his duties immediately on appointment, and will be entitled to receive half pay from the date of his leaving England for South Africa.

Applications, stating age and experience, with copies of testimonials, must be addressed to the Municipality's Agents in London.

E. W. Carling and Co.,
St. Dunstan's Buildings, St. Dunstan's Hill, London, E.C.,

and must be received not later than 28th February, 1905.

RICHARD FEETHAM,
Town Clerk,
Johannesburg.

11th February, 1905.

METROPOLITAN BOROUGH OF SHOREDITCH.

ANNUAL CONTRACTS.

THE Council of the Metropolitan Borough of Shoreditch are prepared to receive proposals and to contract with any person or persons for the following ARTICLES and WORKS for One Year from the 1st day of April next to the 31st day of March, 1906 (inclusive), viz.:—

1. Masons and Paviors.—For Paving, Repairing, and Relaying the Footway and Carriageway Pavements within the said Borough, and the Supply of Materials. (A £10 Bank of England Note to be enclosed with tender.)
2. Manufactured Stone.—For Supplying and Laying Patent or Manufactured Stone, or other Paving Material.
3. Asphalting.
4. Broken Granite.
5. Plumbers' Work.
6. Smiths' Work.
7. Drain Pipes, Junctions, Bends, &c.
8. Drain Rods, Pails, Ropes, &c.
9. Timber.
10. Sewer Ironwork and Street Posts.
11. Gas Fittings, &c., for the Public Lighting of the Borough.
12. Glass, &c., for Street Lanterns.
13. Lime, Cement, &c
14. General Cartage. (A £10 Bank of England note to be enclosed with tender.)
15. Street Name Plates, Notice Boards, Writers' Work, &c.
16. Ballast, Hoggin, Shingle, and Sand.

Samples of the above articles can be seen at the depot, Flemming Street, Kingsland Road, N.

17. Electricity Works Department.—(*a*) Electric Cables and Sundries; (*b*) Gas Pipe and Fittings, and (*c*) Engineers' Stores.

Samples may be seen at the Electric Lighting Station, Coronet Street, Hoxton, N.

18. Scavenging and other Departments.—Ironmongery, Coal and Coke, Basket Work, and Miscellaneous India-rubber Work, Brooms, Brushes, Soap, and Loin Cloths.

Samples of the Articles required for these departments may be seen, and forms of tender obtained at the Town Hall, Old Street, E.C.

19. Printing for one or three years; Stationery ditto.

Samples to be seen at the Town Clerk's Office.

Forms of tender for all the above-mentioned articles can be obtained on application to the undersigned.

Tenders must be sent, properly endorsed, to the Town Clerk, at his Offices as under, before 3 o'clock on Tuesday, the 14th day of March, 1905, after which time no tenders can be received.

Contractors must agree to pay the trade union rate of wages observed at the date of the contract, and to observe the usual hours of labour recognised by the trade, and not to sublet the contract, and contractors or their agents tendering in respect of items 14 and 15 only must attend at the Council meeting at the Town Hall, Old Street, on Tuesday, the 14th March, 1905, at 6.30 p.m.

The Council does not pledge itself to accept the lowest or any tender, and none but tenders on the official printed forms will be received, which, with any further information, may be obtained from the various departments of the Council, or from

H. MANSFIELD ROBINSON,
Town Clerk.

Shoreditch Town Hall,
Old-street, E.C.
Februarv. 1905.

BOROUGH OF EAST HAM EDUCATION COMMITTEE.

TENDER FOR SCHOOL MATERIALS.

TENDERS are invited for the SUPPLY of Books, Apparatus, Stationery, and Kindergarten Materials.

The contract will be for a period of two years, ending 31st March, 1907.

Copies of the Schedules and form of tender may be obtained from the undersigned, and samples of the materials required may be seen at the Education Office, Wakefield Street, East Ham, between the hours of 10 a.m. and 4 p.m. (Saturdays 9 to 12.)

Tenders, on the printed form, must be delivered to me not later than 4 o'clock in the afternoon of Monday, 27th February, 1905, and should be endorsed "Tenders for Books, Apparatus, and Stationery."

The Committee do not bind themselves to accept the lowest or any tender.

H. C. PADGETT,
Secretary.

Education Office, East Ham, E.
8th February, 1905.

(Official Advertisements continued on pages 129, 130, and 132).

WILL JENKINS

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

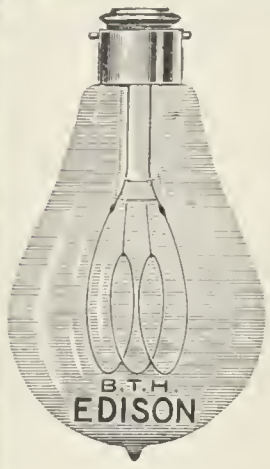
Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."



MADE IN RUGBY.

TRUISM No. 1.

"Fronti Nulla Fides."
i.e.—There is no trusting to appearances.

When buying Electric Lamps this expression should be carefully borne in mind. Lamps may appear very much alike, but this sameness is confined to LOOKS, and does not apply to QUALITY. Make sure, therefore, that your Lamps are marked—

B.T.H. EDISON,

which will always be found to be of the highest standard of excellence.

Obtainable from all principal Electricians, Ironmongers, Stores, &c.

Manufactured by the B.T.H. CO., Ltd., RUGBY.

If you want the Best

REFUSE DESTRUCTOR,
MECHANICAL STOKER,
or FURNACE,

Write to

MELDRUM

TIMPERLEY, near MANCHESTER, AND 66, VICTORIA STREET, WESTMINSTER.

12,000 AT WORK.

AWARDED 10 GOLD MEDALS.

AUGUSTE PELLERIN'S BRITISH-MADE Margarine - Mixtures.

"LE DANSK" 1st Quality.

The LANCET says: "It is of pure and excellent quality."

The PUBLIC ANALYST says: "The gustatory properties are in every way equal to the best Butter, and the dietetic value is identical."

ALSO VARIOUS CHEAPER GRADES
SPECIALLY PREPARED FOR PUBLIC INSTITUTIONS.

"LE DANSK" FACTORY, SOUTHAMPTON.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.
PRICE LIST POST FREE.
GREAT TURNSTILE, HOLBORN, LONDON, W.C.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM.
Edited by ROBERT BLATCHFORD.

You should read "THE CLARION" for reliable information as to
MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century,

You Must Read "THE CLARION."

Send for specimen copy to "THE CLARION" Office, 72, FLEET STREET, LONDON, E.C.

THE BEST JUDGES OF CIGARS
Now obtain their supplies at
BENSON'S, 61, St. Paul's Churchyard, London.
Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

THE MUNICIPAL JOURNAL
ESTABLISHED AS "LONDON." THIRTEENTH YEAR OF ISSUE.

No. 629.—Vol. XIV. FEBRUARY 17, 1905.

HOME OF ART.

A Noble Art Gallery, one of the Finest in the Provinces, has just been Opened at Bristol, erected by the Munificence of Sir Wm. H. Wills, Bart., as a Gift to his Native City. Some Striking Architectural Features and a Retrospect.

ON Wednesday Bristol opened what, in the opinion of a leading authority at South Kensington, is the finest Municipal Art Gallery of which any English provincial city can boast. The City and County of Bristol has many magnificent buildings. On the Mansion House alone about £1,000 is annually spent, in addition to the Lord Mayor's allowance of 1,000 guineas. The Lord Mayor has also a chapel which costs about £400 a year to maintain. Municipally, the city is not backward. A few years ago, when its boundaries were extended, £3,088 were spent on the erection of a new council chamber. There are public baths and washhouses, free public libraries and museum, dust destructor, four cemeteries, a municipal school of cookery, two isolation hospitals, &c.

But great as was the local need of an Art Gallery, and much as it was deplored that Bristol should in this respect be so far behind Birmingham, Liverpool, Manchester, Sheffield, and other great provincial towns, no one—not even the most progressive councillor or citizen—dreamed of suggesting the erection of a building on a scale of magnificence such as that opened this week.

BRISTOL NEW ART GALLERY.

The undertaking is Sir William Henry Wills' munificent gift to his native city. This was how the happy thought

came. In July, 1899, it was intimated to the City Corporation that if it would undertake to purchase certain premises belonging to the Rifle Headquarters Company, in order to extend the City Museum, Sir W. H. Wills, Bart., would contribute £10,000 towards the erection of new buildings, so as to provide a Municipal Art Gallery upon a portion of the acquired site. Joyfully the Council closed with the offer, but, owing to legal difficulties, the purchase of the property for the amount mentioned was not effected until the summer of 1901. A few months later it was found that the original estimate for the new erections was wholly inadequate. Then Sir William Wills did that which will long endear his name to Bristol citizens. He expressed his willingness to undertake the entire cost of the structure, involving an outlay of upwards of £40,000.

If Corporations were not entirely proof against the sin of covetousness, a description of the building might lead them astray. The grand central hall, with its lofty and gracefully-arched roof, its elegant mezzonine gallery, with balconies above, andbroad sweeping stairs, is the apartment which would prove the greatest temptation. The mezzonine gallery is something more than a mere architectural contrivance to add to the fine proportions of the central hall. It is bordered by a series of skilfully-coustructed windows, from which light is deflected from a glass roof into side rooms. Further, it affords a valuable promenade, which gives access to refreshment and administrative rooms over the portico and looking directly into the main road. On the upper level is a fine suite of picture galleries. These form a splendid suite of communicating apartments, lighted from above, in which there is ample room for the display of a permanent collection of pictures, and for loan collections which from time to time will be organised. The basement is given over to much-needed store rooms, various necessary offices, a strong room, and a heating chamber. In addition, there is the office of the curator—Mr. Quick, who organised the Wolverhampton Art Gallery, and formerly occupied a prominent position at the Horniman Institute—besides four spare rooms, for which no definite use has yet been found. There are well-appointed cloak-rooms, a kitchen, a large lift, which communicates with each floor, &c.

THE CENTRAL HALL.

Externally, the building is little less impressive. It is classic in style, and the crowning feature of the elevation is a sculptured group symbolical of the arts of painting, sculpture, and architecture. Adjoining and communicating with the existing museum, but yet complete in itself, it stands back from the roadway, the main entrance having a vaulted approach for carriages under the projecting centre portion of the facade.

The central hall is built throughout of Bath stone, richly but not elaborately ornamented. The carving is all in good taste, and executed in a manner befitting the purpose to which the place is to be devoted. The mezzonine gallery is supported, not by pillars, which would have dwarfed the floor space, but by chiselled brackets of uniform design. On either side of the main entrance two figures of Herculean proportions act as supports. Above, on the main walls, are carved the names of 10 famous artists, surmounted by delicate tracery. At suitable places on the face of the balconies the obverse and the reverse of the old Burgess Seal of Bristol, and the arms of the high sheriffs of Gloucestershire and Somerset, have been carved.

Electricity will be the artificial illuminant, and it will be furnished mainly through the medium of eight handsome electroliers of brass, copper finished. These hang from the ceiling by means of chains. Each will burn 31 lamps, the upper row being designed to represent flames. They are quite in keeping with the general character of the building, and are as ornamental as they will be useful. As the apartments will be open sometimes after dark, the light from the electric lamps, by an arrangement as simple as it is effective, can be thrown upon each work at an angle best calculated to reveal its beauties. The whole of the doors and the fittings, wherever possible, are of polished American walnut. As some extremely handsome wood has been employed, the effect, apart from the uniformity, is rich. The furniture has been made to correspond.

The space at our disposal does not permit of a full description of the building, nor of the uses to which the various sections of the gallery are devoted. The ground floor rooms are chiefly devoted to the display of antiquities. In one are to be found those from Egypt, Assyria, Greece, and Rome; in another those illustrating generally the science of anthropology; in a third are objects of industrial and decorative art; a fourth is "the Bristol Room," the collections in which illustrate the past history of the city.

Valuable and varied are the possessions of the city which have been placed in this latter apartment. Amongst other exhibits are a Roman lead coffin, found in the neighbourhood, the old city weights and measures, tablets and figures removed from historic houses, china, &c. These works of art and antiquity make the gallery a place of interest and importance, and it is much frequented.

POOR LAW EXTRAORDINARY.

A MOST extraordinary state of affairs prevails in the Medway Union, comprising the three towns of Rochester, Chatham, and Gillingham. Some of the "guardians" apparently are not legally Poor Law guardians. It appears that in 1901 the overseers of Gillingham, in consequence of a vote of the vestry, under the powers of the Act of 1894, applied to the Kent County Council to have nine guardians for the borough of Gillingham instead of six. Some correspondence passed, and the clerk and others apparently thought the matter was settled. The elections proceeded, and quite recently the overseers applied to the County Council for the nine guardians to be allotted to the wards. "What do you mean about the nine guardians for Gillingham? You have only six," wrote back the clerk to the County Council (Mr. Prosser). Then it was discovered that no order had been received.

HAPLESS HARWICH.

The Town Council and its Electric Lighting Order. Much Talk but Little Work. Mayor's Extraordinary Memorandum—a Secret Document. Will the Order Lapse and a Company Come in?

HARWICH Town Council is one of those municipal authorities—fortunately few in number—that have obtained electric lighting Orders, but have not been sufficiently enterprising to carry them out. The powers conferred on local authorities for electricity purposes have as a rule been judiciously exercised, but the Harwich Town Council is so fearful of failure that it will not exercise them at all. Although the Order was obtained as long ago as 1892, a motion was actually carried at a recent meeting of the Town Council asking for a further extension of time "until the fate of the Dock Bill was known." Why the Harwich Dock Bill should prevent the Council going on with its electric lighting scheme after the matter has been delayed for 12 years is not quite clear.

The history of the business can be summarised in a few sentences. Soon after the Order was secured, in 1892, tenders for the construction of electricity works were invited, and duly pigeon-holed. In 1897 it was felt that something should be done with the Order, and it was transferred to a company. The company did nothing until the autumn of 1903, when it issued a prospectus inviting subscriptions for a capital of £25,000, and stated its intention of proceeding to allotment on a subscription of £6,250. It then went into "voluntary" liquidation. The Corporation, finding that its powers had, by some mischance, never been properly transferred, and being threatened with the revocation of the Order, took the matter in hand a second time. In 1904, a consulting engineer was appointed, and the Electric Lighting Committee, after a careful investigation, recommended the adoption of his report to the Council.

The Scheme.

The recommended scheme was not the best that could have been presented, from the municipal standpoint, inasmuch as it proposed to lease the works to a company instead of working them under the Council's management. Evidently the municipal spirit is not strong at Harwich, where councillors prefer giving away profits for a long period rather than face a year or two of loss, as is done by more public-spirited local authorities. But, at any rate, the scheme was a commencement, and would have prevented the revocation of the Order by the Board of Trade and the consequent prospects of a company undertakiug with even more onerous terms. The plan proposed the construction of a dust destructor in conjunction with the electric lighting station, the total expenditure being estimated at £25,000.

Mayor's Secret Document.

An innovation was provided at this junctnre by the distribution among the members of the Council, by the Mayor (Mr. W. H. Elwell), of a private circular, the contents of which have not been published. How his Worship reconciles his action with the duties of his position it is somewhat difficult to see. The ratepayers are interested in this matter as well as the members of the Council, and they are equally entitled to the benefit of his advice. It is quite amusing to read Mr. Elwell's expressions of indignation at the meeting of the Conncil when a report reached him that the consulting engineers had seen this precious document.

> The Mayor said he did not think any member of the Corporation would have done such a thing; they must remember that those private communications leaked out in the most extraordinary way. He was aware how private matters connected with larger concerns than that Council leaked out. He should be sorry to think that any member or officer of the Council supplied it. Sometimes the printer was asked and innocently did it.

People in Harwich are now naturally asking what the contents of this mysterious document were, why they were not published, and why even the Council's own consulting engineers ought not to become acquainted with them? Mr. Elwell has evidently a curions idea of the way municipal business is conducted. Local authorities are not close corporations, but public bodies, dealing with public affairs in the public interests. This electric lighting question concerns the general body of Harwich ratepayers as much as, even if not more than, it concerns Mr. Elwell, and anything he had to say upon it should have been made known to all.

What will Occur?

The Mayor's *dossier* was evidently one of the reasons that induced the Conncil to apply for an extension of time instead of going on with the work. Having regard to the fact that the Retford Electric Lighting Order obtained in 1899 and the Sudbury Order, dated 1900, have just been cancelled, the reqnest may not be complied with. The Council will then have cast upon it a grave responsibility.

In reference to the dock scheme, it must be patent to all that if the electric lighting of the borough can be carried on without the advantages arising from the possible supply of current to the docks, there is not the slightest reason for any further delay. Even if the Dock Company's Bill were passed during the coming session, the company wonld not be in a position to take a supply from the Corporation for some four or five years, as the construction of the docks would not be completed much before the end of this period.

An Appeal to the Council.

It will be well for the Corporation of Harwich to take its courage in both hands and to go forward even at this eleventh hour. If the Provisional Order is once cancelled, the unbusiness-like manner in which it has been handled will assuredly prevent an application for a second Order receiving favourable consideration at any future date. The application of some outside company for powers is certain to be made, sooner or later; it will be granted, and granted in all probability for the full term of 42 years, while any application by the Council for the insertion of a clause empowering it to take over the works at any time prior to the above period will be passed over, as was the case at Newbury and elsewhere.

The ratepayers of the borough must surely be in blissful ignorance as to the urgeucy and importance of the matter. Their representatives are, in short, absolutely throwing away the certainty in years to come of receiving a nett revenue from the sale of electrical energy amounting to many hundreds of pounds, and this can be obtained without the risk of increasing the borough rates by one farthing.

BANKERS' TERMS.

"BANK RATE, WITH A MINIMUM OF FOUR PER CENT."

MR. C. W. SHEPPARD, manager of the Middlesbrough branch of the National Provincial Bank of England, has written to Mr. Alf. Sockett, town clerk of Middlesborugh, intimating that his directors have increased the £100,000 limit of overdraft of the Corporation to £150,000 temporarily. He adds that the rate to be charged on the account will be "Bank rate, with a minimum of four per cent." These the directors of the bank say are now their terms to all corporations.

The arrangement at present in force will hold good to June 30 on £100,000, viz., at bank rate, minimum 3 per cent., maximum 4½ per cent., but the rate for any overdraft above £100,000 will be at bank rate, minimum four per cent. From July 1 onward the rate on the whole overdraft will be at bank rate, minimum four per cent.

L.G.B. AND AUDIT.

ARBITRARY ACTION AT PLYMOUTH.

IMPORTANT correspondence has taken place between the Plymouth Town Council and the Local Government Board respecting the audit question. The letters are as follows:—

Town Clerk's Office, Plymouth,
15th December, 1905.

Sir,—I am directed by the Town Council of Plymouth to communicate with the Local Government Board with regard to the audit of accounts of the Corporation after the 31st March next, and to inform them that it would be a conveuience to the Council if the Board could give some indication of their view with respect to the method to be adopted in making such audit.

It is the practice of the Corporation, in connection with the payment of accounts, to obtain from their auditor a certificate to the effect that he has examined the various orders on the borough treasurer, and finds that the aggregate amount thereof is in accordance with the amount set forth in the liability books, aud signed by the chairman of the respective committees before such orders are presented to the Council for signature at their meetings each month.

In the judgment of the Council, it is highly desirable and, indeed, imperative, that some arrangement should be made for the continuance of this work, which, as before indicated, recurs each month.

The Council would accordingly be glad to know whether the Board propose to establish a continuous audit, or what course they intend to pursue.

I am also directed to inform the Board that the Council have been in the habit of making payments for the following purposes:—

(1) Labour registry. Cost about £80 per annum.

(2) Removal of trade refuse in small quantities from shops, refreshment houses, and places of like character. The cost of this work cannot be given separately from the cost of removing house refuse.

(3) Ringing church bells on occasion of King's birthday, and other similar occasions. Cost about £50 per annum.

(4) Illuminated addresses to outgoing mayors. Cost about £15 15s. per annum.

(5) Meteorological station. Cost about £60 per annum.

(6) Travelling expenses and refreshments for members of the Council visiting Asylum, Waterworks, attending Sea Fisheries, and other committee meetings.

The Council are desirous of continuing these payments after the 31st March next. For some of such payments the Council have no legal authority, and with regard to others the legal position is doubtful, and they direct me to ask the Board to sanction such expenditure under the provisions of the Local Authorities (Expenses) Act, 1887.

I am, Sir, your obedient servant,
J. H. ELLIS, Town Clerk.

Local Government Board, Whitehall, S.W.
14th January, 1905.

Sir,—I am directed by the Local Government Board to advert to the inquiries contained in your letter of the 15th ult. relative to the arrangements to be made for the audit of the accounts of the Town Council of Plymouth by a district auditor, in pursuance of the provisions of Sec. 6 of the Plymouth Corporation Act 1904.

The Board direct me to state that, as provided by that section, the accounts of the Corporation and their officers for the year ending in March, 1906, and subsequent years, will be audited in like manner as the accounts of an urban authority and their officers under Secs. 247 and 250 of the Public Health Act, 1875. These sections already apply, as mentioned in the Board's circular letter of the 6th May, 1903, to the accounts of the Town Council as local education authority.

Sec. 247 of the Act of 1875 contemplates that the accounts shall be audited once in every year, after due notice, and after the accounts for the past financial year, which are to be audited, have been duly made up and balanced and deposited for inspection (Sub-secs. 1, 3, and 4).

It will not be part of the duty of the district auditor to make monthly examinations of the orders on the borough treasurer, and give certificates respecting such examination, as contemplated in your letter. The Board think that the Council should assign to one of their own officers the duty of conducting examinations of this kind.—I am, sir, your obedient servant,
THOS. PITTS, Assistant Secretary.

Local Government Board, Whitehall, S.W.
14th January, 1905.

Sir,—I am directed by the Local Government Board to advert to your letter of the 15th ultimo, with reference to the accounts of the Town Council of Plymouth, and as regards the request that the Board will sanction certain expenditure mentioned therein under the Local Authorities (Expeuses) Act, 1887, I am to state that the Board do not consider that it was contemplated that they should, under that Act, give such a general prospective sanction as the Town Council appear to desire.

At the same time, I am to state that the Board must not be understood as expressing any opinion as to the legality of charging in the accounts of the Council any of the items referred to in your letter. This question will be one primarily for the consideration of the district auditor, at the audit of the accounts, in which any such payments may be charged, and an appeal may be made to the Board against his decision.—I am, Sir, your obedient servant,
THOS. PITTS, Assistant Secretary.

The position created by the attitude of the Local Government Board is now being considered by a committee of the Plymouth Council.

EDUCATIONAL NOTES.

Cornwall Interprets "Beneficial Employment." Equality for Teachers in Durham. The Training College Question in England and Scotland. Kent Reproaches Whitehall. Forthcoming Exhibition at Leeds. Savings Banks and Thrift. The Welsh Troubles. Yorkshire (West Riding) under an Official Cloud.

Birmingham.—Bursaries of £8 a year have been granted to 155 girls in attendance at secondary schools, who intend to become pupil teachers in Birmingham public elementary schools at 16 years of age or thereabouts, if required by the Education Committee.

Bridlington.—It was reported to the Education Committee that the estimated education expenditnre for the coming year would be abont £600 less, and that this meant a reduction of 2½. in the £ on last year's rate.

Bristol.—The Education Committee has decided that managers be requested to submit new time-tables providing for religious instruction being given only at the school, in all those cases where the time-tables provide for attendance at church.

Cornwall. — The Education Committee has issued an interpretation of "Beneficial Employment" as (a) likely to advance the child's welfare, morally, mentally, and physically; (b) or, if necessary for the maintenance of the family, is at least not likely to be injurious to his permanent welfare in any of these respects. It mnst in no case be casual or intermittent. Labour certificates are not to be awarded unless a written application is made, showing (a) the kind of employment to be followed; (b) that the employment will be regular and not intermittent; (c) that a situation has already been obtained; (d) the date and place of passing the labour examination. Lastly, certificates are held at the pleasure of the local authority, and may be cancelled by it if thought desirable.

Devonshire.—The Education Committee has agreed to ask the secondary schools in the connty to apply to Whitehall for an inspection, the cost of the same to be defrayed in equal portions between the school authorities and the County Council.

Durham.—The County Council has decided that on and after 1st February the salaries of the teachers in the non-provided schools shall be paid in accordance with the Council's scale for its own teachers.

Eastern Counties. — TRAINING OF TEACHERS.—A joint committee of the Eastern Connties was held on 13th February, to consider a memorandum prepared by Mr. Austin Keen, Director of Edncation for Cambridgeshire, upon the training of elementary school teachers in East Anglia. At the same time, proposals were considered for the establishment of hostels in connection with the Norwich Training College and the Saffron Walden College.

Gloucestershire.—The Education Committee has agreed to recommend the County Council to join with the Bristol and Somerset committees in the establishment of a joint school for epileptic children, to be erected at an estimated cost of £15,000.

Hampshire.—The new chairman of the Education Committee, in succession to the late Lord Northbrook, is the Right Hon. Evelyn Ashley.

Hornsey.—The Edncation Committee has selected certain of its members to visit the training colleges, with the view of securing suitable students of the highest attainments for service at Hornsey. The travelling expenses of the members are to be paid by the authority.

Kent.—The Edncation Committee, at a recent meeting, had before it a report that the estimate of the rate expenditnre for higher education in the connty was £2,260. It was agreed to communicate with the Board of Edncation npon the necessity of levying a rate in order to secure the Government grant for higher education.

Leeds.—There is to be an exhibition of works executed by the students of the School of Industrial Arts, Geneva, at the City Art Gallery on 4th March next. The exhibition is being arranged by the West Riding and the Leeds Education Committee, and is dne to the visits to Geneva of several art masters in the employ of the former committee.

Lincolnshire (Lindsey).—Under the local education authority, the managers are permitted to take children to church during school hours on four occasions a year. These would have to be shown on the school time-table, and wonld not be departed from. The arrangement is subject to the parents' consent or non-opposition.

Norfolk.—An important decision has been circulated in a letter from the Board of Education to the connty conncil, dealing with the case of some managers of a Voluntary school taking children to church. The opinion of the Board is that the only remedy which the local education authority possesses is to proceed by way of prosecuting the parents of the children for a breach of the school attendance bye-laws. The Board further intimated that the case was not one for refusing to maintain the school out of the rates.

Nottinghamshire. — The Edncation Committee is distnrbed abnut the requirement that children of the higher elementary schools should do regular home lessons. It was resolved to refer it to a sub-committee to inqnire into the reasonableness of the regulations upon the subject.

Oxford.—The Education Committee has joined the number of those education authorities that have agreed not to differentiate between the salaries of the girls' and infants' schoolmistresses. The salaries of the latter class are to be levelled up to those of the former.

Savings Banks. — The authorities at Whitehall have recently issned a circular to local education authorities on the importance of thrift, with special reference to the facilities offered by the post office for banking the pence of the scholars.

Scottish Training of Teachers.—The Scotch Education Department has issned a minute upon the subject of training colleges for teachers in Scotland. The object is to create local committees in connection with the Universities of St. Andrew's, Glasgow, Aberdeen, and Edinburgh respectively for the training of teachers. The proposals will involve the ultimate transfer of the management of the existing church training colleges to the new committees, with adequate safeguards for the continuance of religions instruction.

Wales. — The managers of a Roman Catholic school in the Barry urban district have complained to the Board of Education that the local education authority has failed in its duty to maintain the school. The Board, in reply, has asked for a statement showing the exact grounds of complaint, the teachers, and the reduced salaries offered them, and the scale of salaries recognised by the Council for teachers in its own schools. It is thought that the Local Authorities (Default) Act, 1904, may have to be applied in the area in question.

Yorkshire (West Riding).—The Lord President, in a letter to Lord Halifax upon the proposed deduction of teachers' salaries on acconnt of giving denominational instrnction in school honrs, intimates that "this appears to the Board of Education to be a violation of the Edncation Act, 1902," and that "the precise mode of dealing with the matter is now under consideration with a view to immediate action."

GUERNSEY TELEPHONES.

A LEAD TO THE UNITED KINGDOM.

ANOTHER SUCCESSFUL YEAR.

ONE man one telephone is a condition of things which is apparently being aimed at by the Government of the States of Guernsey. Year by year we have shown how the business of the Department has grown. Seven years of working have now been completed, and for several years Guernsey has maintained its pre-eminence as the best telephoned area in the United Kingdom.

Last year we recorded that during the twelve months under consideration the number of snbscribers' lines had increased from 937 to 1,044, or a total of 107, but for the year ended December 31st, 1904, the figures were even more satisfactory, the number of lines having increased from 1,044 to 1,162, or a total increase of 118. There were on 31st December last 119 extension lines, as against 91 in the previous year; 22 private lines, as against 19; 49 public telephones, as against 40; 32 junction lines, as against 29; 1,231 switch-rooms, as against 1,165; 1,989 fixtures to buildings, as against 1,722; &c. The length of wires to subscribers' instruments had increased during the twelve months by three miles, being 12 miles 996 yards at the commencement of the period, and 15 miles 996 yards at the end. The service lines and the free lines had not increased in number, being six and one respectively dnring the two years, and indeed since 1901. There was a slight falling off in the number of junction lines, and standards on roofs.

But the growth of the Telephone Department is more clearly shown in the fact that the calls during 1904 showed an increase of 66,409 over those of the previous year, the figures being 746,398 and 679,989 respectively. The total nnmber of telegrams, express and ordinary letters, telephoned to the Post Office increased by 799, the figures being 5,165 in 1904, as against 4,366 the previous year. The average number of subscribers and public telephone connections per day (excluding Snnday) was 2,331, compared with 2,113 in 1903.

It is interesting and important to municipalities with telephone undertakings to know which schedule of charges the public favour most. The Guernsey public, with no uncertain voice call for what the department designates "Tariff A." This costs £1 10s. per annnm and 1d. per call, and the number of snbscribers in December were 985, as compared with 898 in the previous period. The number of subscribers on "Tariff B," which costs £2 5s. and ½d. per call, was only 82, and the snbscribers on "Tariff C," £5 per annum and 3,200 calls without further payment, numbered 95. The number of subscribers on both these tariffs also showed increases over the previous year.

A word as to finances. The revenue receipts for the year amounted to £4,419 3s. 11d., while the total expenses were £3,005 14s. 4d. The receipts also included £121 11s. 8d. by interest on deposit account and States bonds, and £5 13s. 2d. by disconnts received. After payment of £1,256 0s. 5d. to reserve account for depreciation and capital sinking fund (being 5 per cent. on the amount charged to constrnction account, calculated monthly), there was a nett profit for the year of £284 14s.

The popnlation of the island is 40,300, and this shows that the fortunate inhabitants are blessed with one telephone to about every 32 souls. In other words, it is the best telephone area in the United Kingdom.

THE CITY SECONDARY.

THE Corporation of London is taking steps for filling the office of Secondary, which has been rendered vacant by the death of Mr. T. Vaughan-Roderick, who held the position for 20 years. It is proposed by the Officers and Clerks Committee that the salary shall begin at £750 per annum, and rise to £1,000 a year. The age limit of candidates will be fixed at between 35 and 50.

THE ORIGIN OF MUNICIPALITIES.*

Early Fiscal Arrangements between Shire and Town. Manorial and Royal Dues and an Easy Way of Collecting them. The Forms and Offices of Early Municipal Government. Breaches of the Local Laws. A Man having Married Two Wives Ordered to Leave the Town and Take his Second Wife with Him.

[*By MR. EDWARD R. PICKMERE, M.A., Town Clerk of Liverpool.*]

II.

IT may be said that the form of municipal government, with its mayor and corporation, had its origin in one of two constitutions according to the nature of the importance of the town in which that form of government took shape, viz., either in the meetings of the men of the township, *i.e.*, the owners of lands and the burgage tenants, under the presidency of the reeve; or in the trading towns, in the meetings of the guild, under the presidency of the alderman who was its chief. Both these governing bodies ultimately held their right of self-government directly under the King; but this right was by no means obtained without price. A fixed or compounded rent, called the *firma burgi*, was paid to the King, and in the payment of this rent we find the first instance of a fiscal arrangement between shire, *i.e.*, county, and town. The sheriff of the county had to pay to the Crown a fixed sum per annum, and he collected it from the rich burghers of the towns to the advantage of his own pocket, into which he placed the overplus collected from the county, as he was not called upon to render an account. The burghers of the town naturally resented this, and had a valuation made of the amount really due from the town contributed by the burghers, no doubt on a rateable value basis; and ultimately the collection of this amount was taken out of the hands of the sheriff and paid direct to the king.

Towns with Privileges.

Now, the privileges conferred upon these towns which received their Charters from the Crown (and Liverpool was one of these towns, having received its Charter from King John) were chiefly as follows:—(1) the holders of burgage tenements (or crown lands) were exempt from payment of manorial and royal dues, the latter being in the nature of taxes on commerce, and forming a very large share of the Royal revenues. The non-burgesses paid these dues, and what are known in Liverpool as the town dues are the remains of these ancient Royal taxes, and this privilege of freedom from payment of customs enjoyed by the burgage tenants extended not only to the town in which they resided, but also to all other towns with which they traded.

(2) The boroughs chartered by the King had the privilege of trying offenders against the law in their own courts, instead of having to resort to the hundred and county courts, and consequently escaped having to pay the heavy fees and fines exacted by and paid to the Crown in these courts.

(3) They had the privilege of electing and being governed by their own sheriffs, mayors, and bailiffs, instead of being governed by the Crown bailiffs. Liverpool was governed by its own bailiffs from the time when it obtained its first Charter, and by its own mayor and bailiffs from the reign of Edward III.

Early Local Government.

During the reign of the Plantagenet kings the number of boroughs to which Charters had been granted by the Crown was not great, but there existed two other classes of towns which had a form of municipal government. These were—

(1) The towns which had received Charters from the superior lords, *e.g.*, Leicester and Durham; and

(2) Those town communities which were unchartered, but had certain privileges and rights, such as holding markets and fairs, which distinguished them from the other small towns and villages. With regard to the local administration of these towns, that of the first-class described was in the hands of the guilds, and of the second-class in the hands of the townspeople in general. The name of the first mayor recorded in history is Henry Fitz Alwyn, Mayor of London during the reign of Richard I, but it does not redound to the credit of the original holder of this important office that history relates that he and those who joined him in municipal government "wanted the poor to pay everything," to the relief of their own purses. In this respect, at all events, we may say that there has been a great change from the old order of things. The rights and liberties of the towns were recognised and confirmed by the Magna Charta, and the name of Henry Fitz-Alwyn appears as one of the signatories to the Charter. The sheriff, as chief officer of the crown in the county, although he had lost his right of collecting the tax, or *firma burgi*, in such of the boroughs as had compounded for it, had still jurisdiction in the boroughs in relation to the preservation of the peace, and the armed forces of the towns were led by him. When representatives from the towns were summoned to Parliament the writs were sent to the sheriffs of the counties, although, as a matter of fact, when Simon de Montfort summoned the town communities to his Parliament the writs were sent to the magistrates of the towns.

Liverpool as an Example.

Although it is not a subject which can be dealt with at length, it is interesting to note that the deputies of boroughs were permanently grafted upon the English Parliament by Edward I. The writs were addressed to the sheriffs, and directed the election not only of knights but of citizens and burghers. The burgesses of Liverpool returned two members to the famous Parliament of Edward I. (1295), and their names were Adam FitzRichard and Robert Pinklowe. As I have previously mentioned, Liverpool in the reign of Edward I. was governed by the bailiffs. In the reign of Edward III, in a letter from the King dated the 19th of May, 1356, we find Richard de Aynesargh, "mayor of the town of Liverpool," authorised to acquire £10 worth of land belonging to the Duke of Lancaster, and to give and assign the said land to perform divine service every day for the souls of the faithful deceased in the Chapel of the Blessed Virgin Mary and St. Nicholas at Liverpool, and two years afterwards the same duke granted to "the mayor, bailiffs, and good men of the town of Liverpool" the right to take certain rates for the two years next following in aid of the paving of the town. The development of local government in the towns after their inauguration by Charter varied considerably, and it would be impossible to give even a sketch of the local customs and usages which the Charters in most instances ratified and confirmed. I propose, therefore, to take Liverpool as an example of the nature of local government which prevailed in many large towns in the Tudor period, and to take a page or two out of "Baines' History of Liverpool," which contains extracts from the corporation records during the reigns of Edward VI., Mary, and Elizabeth. It appears from the corporation records that the mayor was elected on St. Luke's Day, October 18th. As the chief person in the corporation, which was a trading guild, it was the duty of the mayor to make bargains for the public. It was also his duty to see that the highways were kept in order, to perambulate the bounds of the town, and to keep the public peace. On all great occasions he was attended by the aldermen, bailiffs and burgesses, who were required to appear in their best robes and with their halberds. The sergeant-at-mace was appointed by the mayor, and walked before him with the mace. The mayor gave and presided over the banquets to visitors of distinction, and had the expenditure of the public monies. The mayor of 1571 received £24 14s. 8d., and expended £28 11s. 8d. The mayor of 1573 only received £5 14s. 9d., but when he left office he had only spent £5 7s. 9d. The next in dignity to the mayor were the aldermen or "mayor's peers." Each alderman was required to keep four halberds, to keep in order the borough, and to supply two men to walk in the great procession on Midsummer's Eve. Each alderman was also required to walk in the procession and in his best gown. Any alderman refusing to take a reasonable journey on the town's business, having his expenses paid, was subject to a fine of £10.

Real Work of the Corporation.

Next in importance to the aldermen were the bailiffs. These officers performed the real work of the Corporation, one being appointed by the mayor and the other by the burgesses. They had to collect the town's rents and also all the taxes, which they had to pay themselves if they were not diligent in collecting. They had to keep two halberds and to go with the mayor to inspect and put down nuisances—to turn out of the town all persons "disallowed" by the grand jury. For these duties they were entitled to a share in all the fines, including the cost or ransom money of ducks, geese, and swine seized in the corn market on Saturday. The governing body of the town was the common council—in earlier times the burgesses met in common hall twice a year, but as the number of burgesses increased the democratic form of government was supplanted by a common council, which afterwards became self-elective and exclusive. The mayor and burgesses, being authorised by the Charters to act as a trading guild, were able to regulate the prices, quantities, and qualities of numerous articles sold in the town, and they claimed the right of buying whatever was brought into the port, and on one occasion they fined one of the principal burgesses 20 marks for buying a cargo of goods which they desired to purchase themselves.

Vagabonds in Stocks.

As an example of their regulations with regard to the prices, &c., of articles, we find an order that ale and beer should be sold at 1d. a quart, and that during a time of scarcity ale and beer should be brewed at a moderate strength owing to the high price of corn. Bread was to be sold at prices fixed by the mayor, to be weighed in the bakers' shops once a month, and to be made only in ½d., 1d., and 3d. loaves. There were many other regulations as to the sale and purchase of produce. For example, corn was not to be sold anywhere but in a public market and in a certain quantity. There were also certain police regulations such as the licensing and reduction in the number of ale houses. Bachelors were not to walk out after nine o'clock except on lawful business. Bowling alleys and gaming houses were voted immoral and put down. Cudgels were not to be carried in the streets. Chiders and scolders were to be fined and imprisoned, and if otherwise found incurable, to be ducked. The side of a house built too slightly was to be pulled down and "to be made lawful." Here we see the origin of the present building surveyors' duties. A man having married two wives was ordered to leave the town and take his second wife with him. Some unlucky vagabonds described as "the wanderers with the hobby horse" were ordered to be put into the stocks. It is a pity we have not the stocks now into which we could put similar vagabonds. Watch and ward was to be kept from eight o'clock at night to four o'clock in the morning, and persons not keeping watch in their turn were to be fined. If this regulation were now in force the cost of the police would be materially reduced. We have also a trace here of the provision of hospitals, for strangers suspected of having the plague were removed to huts on the common, where they were kept until they recovered or died.

(To be Continued.)

* From a lecture delivered at Liverpool University.

OFFICIAL & PERSONAL.

MR. MONRO'S RETIREMENT.

COMPLIMENTARY DINNER.

MR JAMES G. MONRO, who recently vacated the office of Town Clerk of Glasgow, was entertained to a complimentary dinner last week in the Windsor Hotel by the chief officials of the Corporation. Mr. A. B. M'Donald, city engineer, occupied the chair, the cronpiers being Mr. John Bowers, the present Town Clerk, and Mr. Barrett, city librarian. The company inclnded Sir James D. Marwick, LL.D., ex-Town Clerk; Professor M'Call, F.R C.V.S.; Mr. George Neilson, LL.D.; Mr. James Paton, F.L.S; Mr. T. Eaton Robinson, and a large number of other officials. During the evening "The Health of Mr. Monro" was proposed in appropriate terms by the Chairman. In replying Mr. Monro was visibly moved. His speech was full of reminiscences of former days. The other toasts were "The City of Glasgow and its Interests," proposed by Mr. John Lindsay, Deputy Town Clerk, and responded to by Dr. Neilson, Procurator-Fiscal; "Sir James Marwick," proposed by Mr. James Paton, and responded to by Sir James; and "The Chairman," proposed by Mr. Barrett.

An interesting item in the programme was the presentation to Mr. Monro by Sir James Marwick, in the name of the chief officials, of a handsome silver inkstand, richly chased and fluted, bearing on a shield in front the monogram, "J.G.M.," and on a corresponding shield on the back the city arms; on the top of the lid the inscription—"To James George Monro, Esq., Town Clerk of Glasgow;" and on the flat base, "From his Colleagues, February, 1905," followed by their signatures in fac simile. The stand was designed by Mr. Monro's old friend and colleague in the city service, Mr. A. B. M'Donald; and made by Messrs. Muirhead and Arthur, silversmiths, St. Vincent Street.

POPLAR M. O. ASSOCIATION.

Annual Dinner.

THE members of the Poplar Municipal Officers' Association met for their fifth annual dinner at the Inns of Court Hotel, and spent a most enjoyable evening.

The town clerk (Mr. Leonard Potts) presided over a fairly large company, including his Worship the Mayor of Poplar (Alderman Mark Dalton, J.P.), last year's Mayor (Councillor A. W. Yeo), Mr. Harley Heckford, borough surveyor; Mr. J. B. Skeggs, deputy town clerk and chief of rating department; Mr. W. C. Young, borough analyst; Mr. O. E. Riche, borough treasurer; Mr. Cyril O'Neal, hon. secretary; Mr. C. F. Short, assistant hon. secretary; Messrs. Ashton, Pullinger, Burt, Ben Meers, Bundock, Johnson, Burningham, T. Chivers, G. Chivers, Bullock, Sutton, Quested, Knibbs, W. E. Nicholls and brother, J. Williams, Brodie, Anderson, Batty, McLeod, Chamberlain, Ingram, Cruickshank, Parrott, and others.

Following an excellent dinner and the toast of the "King, Queen, and Royal Family," the chairman, in proposing the toast "Success to the Metropolitan Borough of Poplar," said he was proud of Poplar, and, in watching its growth since 1874, was bound to say that, in the matter of street lighting, cleansing, and sanitation, there had been vast improvements. Poplar to-day stood about the eleventh on the list of London boroughs with respect to population, rateable value, and area. The Poplar Borough Council had also done its best towards solving the difficult problem of the unemployed, and he believed Mr. Long's committee, to a large extent, had been inspired by what Poplar had done in this respect; whilst in all other municipal questions Poplar was always well to the front.

The Mayor, in reply, thanked the officers for the opportunity of meeting them, and hoped that such gatherings would help them to rub off any rough corners which might have existed during the year.

In the course of his remarks, his worship stated that Poplar was first in several respects amongst the London boroughs, being the highest rated, and having one of the best staffs. Unfortunately, this borough was shortly about to lose one of its oldest officers in Mr. T. Johnson, who had for 30 years been a familiar figure at the Poplar Town Hall, and who was now about to retire on a well-earned pension.

The toast, "Borough Officers' Association," was proposed by Councillor A. W. Yeo, who said he was pleased to learn that not the least important branch of the work of the association had been the help it had given to charitable objects, no less than £275 having been handed over to the different societies for that purpose during the past four years. The Vice President (Mr. W. H. Pullinger) replied with a humorous speech.

Other toasts followed, and during the evening Mr. W. E. Nicholls, the late hon. sec., was presented with a gold watch, suitably inscribed, as a mark of esteem from the members and in recognition of his valuable services as secretary to the association since its foundation. Mr. Nicholls thanked the officers for their token of appreciation of his services, and stated he had always endeavoured to work for the benefit of the members.

A capital musical programme was contributed to by Mr. A. J. Dedman (accompanist), D. M. McLeod, G. Anderson, O. E. Riche, C. A. O'Neal, T. Johnson, D. Sutton, H. J. Chatterton, E. James, E. Genders, and H. J. Harpley (violin soloist), and a most pleasant evening terminated with "Auld Lang Syne."

TO OUR READERS.

ENLARGEMENT

OF THE

MUNICIPAL JOURNAL.

COMMENCING with the issue of March 3, the MUNICIPAL JOURNAL will be enlarged to 36 pages. The expansion has become necessary for several reasons, the principal of which is the striking development of local government during the past several years. Concurrently with that development, we have been obliged to introduce many new features which we are conscious have not received adequate treatment, owing to lack of space. Education is one large new subject to which our columns have been opened, and the Poor Law problem is another. We are constantly receiving letters from our readers asking for more information on particular problems than we have hitherto been able to give, and the authoritative position now occupied by our periodical makes it necessary that these requests shall be complied with.

Our future programme will proceed on the lines of extending our present features, and introducing as many new ones as possible. It also provides for the publication of more of those informative articles on particular subjects which readers throughout the Kingdom—whether councillors or officials—have assured us have been highly useful to them.

These developments will involve an increase in the price of the JOURNAL to 2d.—with a special discount to subscribers. The paper will still, considering the quantity and value of the information and news which it gives, be the cheapest weekly journal of its kind.

The first number of the new series will be arranged upon a novel plan, and will constitute a survey of the present position of municipal enterprise in all its branches. We are arranging for articles by well-known experts.

BOROUGH OF SHOREDITCH.

Annual Dinner of the Shoreditch Borough Council.

A VERY convivial gathering took place at the Holborn Restaurant last Saturday, on the occasion of the eighth annual dinner of the above Council. Dr. Mansfield Robinson presided, and the vice-presidents were Messrs. W. S. Clark, E. Cranston, and T. L. Hustler.

In the absence, through illness, of Sir Thomas Stevenson, M.D. (who, the chairman reminded the company, is the oldest officer in the service of the Council), Mr. Rush Dixon, the borough surveyor, proposed the toast, "Metropolitan Borough of Shoreditch," announcing in the course of his speech that another of those successful socials of members and officers is to be held on March 1st, and that in this function the Shoreditch Guardians will also participate.

In responding, the Mayor said he was favourable to a more liberal treatment of officers' requests in connection with superannuation and security of tenure; and, after telling how a Shoreditch deputation had been received in the North of England, his worship thanked the officers for the assistance they had given him in the exercise of their official duties.

In proposing "The Visitors," the Town Clerk specially mentioned those members of his department who had graced the company with their presence, namely, Messrs. Black and Malcolm (Stepney), Fletcher (Bethnal Green), and Stowe (Hornsey Education Committee).

After a vote of thanks had been accorded to the Chairman, an excellent programme of music, humorous and sentimental, &c., was gone through, prominent among those contributing being Messrs. Fairlie, Black, Filmer, Gregory, Chadwick, Mott, P. M. Wood, H. Heap, R.A.M., and Mr. John Heale. Mr. Fawcett, jun., gained much applause by singing "A Reverie," composed for the occasion by his father.

LEIGH TOWN CLERKSHIP.

THE Leigh Town Council on Tuesday night went through 27 applications for the postition of town clerk of Leigh, vacant by the appointment of Mr. Peregrine Thomas as town clerk of Burnley. The following four are to appear before the Council at its next meeting:—

Mr. Leonard Hewlett, senior assistant solicitor to the Leeds Corporation;

Mr. Frederick W. Ensor, assistant solicitor to the Cardiff Corporation;

Mr. Stanley Wilson, deputy town clerk of Warrington; and

Mr. Thomas Holtlate, Winchester.

The salary is £400 a year, rising by annual increments of £50 to £600.

SALFORD SALARIES ADVANCED.

THERE was a special meeting of the Salford Town Council on Wednesday, with the Mayor (Mr. Alderman Stephens) in the chair, to consider the report of the General Purposes Committee as to increases of salaries and wages. A long list of proposed increases was laid before the Council.

Opposition was raised to the advancing of most of the salaries, which amounted to over £300; but only in two cases was the opposition successful. The Council refused to advance the salary of the gas engineer from £800 to £850, and that of the superintendent of the lighting and cleansing department from £325 to £350.

The salary of the town clerk was raised from £900 to £1,000 by 32 votes to three. Other advances made were the general manager of the tramways, from £500 to £550; Dr. Mullen, medical superintendent of the Ladywell Sanatorium, from £350 to £375; Mr. G. W. Stone, principal of the Pupil Teachers' Centre and Girls' Secondary School, from £320 to £350.

CHESTER CITY ACCOUNTANT'S SALARY.

AT a meeting of the Finance Committee of the Chester City Council, it was decided to recommend an increase of £50 in the salary of the city accountant (Mr. F. J. Beckett). Mr. Beckett's salary is now £450 per year.

TRAMWAYS OR MOTOR 'BUSES?

The Wolverhampton Tramways Committee Recommends the Carrying out of an Interesting Experiment. The Motor Omnibus as a Vehicle of Public Service. Capital and Operating Expenses Compared. Is it a Fair Estimate?

THE Wolverhampton Tramways Committee presented to the Council on Tuesday an interesting report recommending the provision of motor omnibuses along a particular route instead of tramways. The report is instructive because an attempt is made to estimate the respective costs of the two systems, and we anticipate that many of our readers will desire to criticise the figures.

The route referred to is described as the Lea Road and Penn Fields district, and the committee says that the construction of an additional tramway there is "beset by many difficulties, as, owing to the non-removal of the property in Queen Square, and to the extreme narrowness of the roadway in Worcester Street, the construction of a tramway would involve considerable danger and inconvenience to vehicular traffic along those streets, and to the tradesmen who have premises therein. Also, it is more than doubtful whether there is a sufficient traffic to be obtained on the Lea Road to justify the heavy capital expenditure which the construction of a tramway would necessarily involve.

"Rapid strides," continues the committee, "have been made during the past two or three years towards the perfecting of the motor omnibus as a vehicle for public service, and the experience of private companies in many towns shows that a standard design of motor omnibus may be relied upon to give an efficient and rapid service at a reasonable cost.

"The principal advantages of this type of vehicle are:—

"(1) The capital expenditure is very much smaller than must be incurred with any system of tramways.

"(2) There is no initial disturbance of the streets and footways.

"(3) A better average pace can be maintained, owing to the fact that the vehicles are not delayed by other traffic on the road.

"On the other hand, the seating accommodation provided is not so large as that of a double-deck tramcar, and consequently its ability for dealing with rush traffic is somewhat limited.

Capital Cost.

"The total inclusive capital cost of the construction of a tramway from Queen Square along Worcester Street, and Lea Road to the borough boundary, would be approximately as follows:—

Permanent way	£10,400
Electrical equipment...	3,320
Main feeder cables	1,935
Rolling stock, three double-deck cars ...	1,800
	£17,455

"The total capital expenditure involved in initiating a motor omnibus service to give the same car mileage would be approximately as follows:—

Three double-deck motor-omnibuses to carry 36 passengers, at £950	£2,850
Allow for petrol storage tanks, &c., at car depot	200
	£3,050

Operation and Maintenance of Tramways.

"Assuming a fifteen minutes' service from 7 a.m. to 11 p.m., augmented to ten minutes for two hours at noon and three hours in the evening, the total annual car mileage would be 74,000, and the cost of operation of a tramway system would be approximately as follows:—

Operating Costs.	Cost per car mile.
Electricity	2·24
Wages, motormen, conductors, &c. ...	1·91
,, oilers and cleaners	·163
Oil, grease, and sundry stores	·06
Track watering and cleaning	·05
Sand and salt	·015
Tickets, coal, light, and miscellaneous. Items common to electric car and 'bus.	·276
Total operating costs	4·72

Maintenance and Renewals.		
Permanent way	·1	
Feeders and conduits	·05	
Rolling stock	·4	
		·55
Maintenance of Lorain Equipment ...		·25
General Charges.		
Rents, rates, insurance, and miscellaneous		·3
Total working costs		5·82
Capital Charges. (Capital expenditure, spread over 40 years.)		
Five per cent. interest and sinking fund on capital expended, £17,455 = £872 15s. 0d.	2·83	
Depreciation and renewals	1·7	
		4·53
Total cost		10·35

Operation and Maintenance—Motor 'Bus Service.

"Assuming the same car mileage, 74,000, it is estimated that the cost of operation of a motor omnibus service would be approximately as follows:—

Operating Charges.		Cost per 'bus mile.
Petrol	1·5	
Wages of drivers, conductors, &c. ...	2·5	
,, oilers and cleaners	·2	
Oil, grease, and sundry stores	·2	
Tickets, coal, light, miscellaneous, items common to electric car and 'bus	·276	
		4·676
Maintenance and Renewals.		
Tyre renewals	2·0	
Rolling stock (10 per cent. on capital cost—10 per cent. on £2,850=£285)...	·925	
		2·925
General Costs.		
Rent, rates, insurance, and miscellaneous		·3
		7·901
Capital Charges.* (Capital expenditure spread over five years).		
Interest and depreciation, 25 per cent. on £2,850=£712 10s.		2·3
Total cost		10·201

Type of 'Bus.

The committee instructed the engineer to prepare specifications, and obtain tenders for three double-deck petrol omnibuses. Each 'bus will be provided with a 30 B.H.P. petrol engine, and will be capable of a maximum speed of 14 miles per hour.

The approximate dimensions are as follow:—

	ft.	in.
Length of body	12	5
Length of rear platform	2	10
Width over roof	6	3
Width over side pillars	5	9
Height inside—floor to roof	6	1
Wheel base	11	0
Wheel gauge	6	0

Seating Capacity.
16 passengers inside.
18 ,, on roof
2 ,, beside driver
Total 36 passengers.

The committee was of opinion, having regard to all the circumstances, that the provision of a motor omnibus service would meet the requirements of the Lea Road and Penn Fields district.

[See "Notes and Comments."]

THE Camberwell Borough Council on Wednesday unanimously decided to contribute the sum of £10,000 towards the cost of acquiring 25 acres of land known as Sander's Estate, Denmark Hill, as a public park. The land adjoins that upon which the new King's College Hospital is to be erected. If acquired, the park will be known as "Ruskin Park." It is to be purchased for the sum of £2,000 per acre, and £4,000 has already been promised from private sources. It is hoped by the committee that the fund will be a great success.

* It will be observed that in the case of tramways the repayment of the capital expenditure is spread over a period of 40 years, whilst the capital expenditure for motor omnibuses is spread over five years.

CORPORATION WORKMEN.

NEWCASTLE SUPERANNUATION SCHEME.

THE town clerk of Newcastle (Mr. Hill Motum) has issued to the workmen employed by the Newcastle Corporation a memorandum upon the superannuation scheme. The document explains the scheme as follows:

Every Corporation workman is entitled to the benefits of the superannuation scheme, without taking any action in the matter.

If a workman does not desire to have the benefit of the scheme, he must give notice in writing to the Corporation not later than the end of March, 1905.

The benefits of the scheme are:—If a workman attains the age of 60 years and has completed a service of 40 years with the Corporation; or if a workman attains the age of 65 years; or if a workman becomes incapable of discharging his duties with efficiency by reason of old age (60 years and upwards), or permanent infirmity of mind or body, he will be entitled, on resigning or otherwise ceasing his employment, to receive during life a superannuation as follows:—If he has served 10 years with the Corporation, an annual allowance equal to ten-sixtieths of his annual wages (based on his average wages for the past five years), with an addition of an annual allowance of one-sixtieth of his annual wages for every completed year's service over 10 years and up to 40 years.

If a workman who has not become entitled to superannuation allowance loses his employment with the Corporation by reason of a reduction of the number of workmen, or by reason of bodily injury not occasioned by his own default, or any other cause except his own misconduct, or voluntary resignation, he will be entitled to a return of the money he has paid to the Superannuation Fund; and in any such case the Corporation may grant to him out of a fund a sum not more than double the total amount of the wages paid to him during the preceding year.

Every workman who is entitled to the benefits of the Superannuation Fund must contribute to it by way of deduction from his wages as follows:—

If he has now served less than five years, about 4½d. out of every pound of wages paid to him.

If he has now served more than five years and less than 15 years, 6d. out of every pound of wages paid to him.

If he has now served more than 15 years and less than 30 years, about 7d. out of every pound of wages paid to him.

If he has now served 30 years and upwards, about 9½d. out of every pound of wages paid to him.

When he has served 40 years and is 60 years of age, he will be able to retire, cease paying to the fund, and obtain weekly 13s. 4d. for every pound of the amount of his weekly wages, and the like proportion for amounts under a pound.

Thus, if his wages came to 27s. a week during the five years before retiring, he will have 18s. a week allowance for life.

COUNTY BOROUGH FINANCE.

AN IMPORTANT QUESTION.

AT the Surveyors' Institution, Westminster, this week, Sir Hugh Owen sat as arbitrator, appointed by the Local Government Board to determine the financial adjustments to be made between the county of Durham and West Hartlepool on the latter becoming a county borough.

Mr. C. A. Cripps, K.C., M.P, who represented the West Hartlepool Corporation, said that the question which had arisen was probably the most important as between newly-constituted county boroughs and the old County Council districts that had ever come before an arbitrator. In this case there had been a large element allowed of what had been called compensation in respect of loss of rateable value where the expenditure in the district taken has been small in proportion to the rateable value of the district transferred.

Since these various financial adjustments had been made a case had been decided in the House of Lords, and what they desired to arrange (and it applied to a great many county boroughs) was whether the decision in the House of Lords applied to the adjustments between the newly-constituted county boroughs. They had really come before Sir Hugh Owen to have a case stated, so that the county councils should not be placed in a worse position by reason of the boroughs being constituted county boroughs than they would have been if they had remained part of the county which shared in the sum received by the county in respect of the licence duty and probate duty grant.

After arguments, it was decided that Sir Hugh Owen should state a case for the courts of law to decide.

THE first public statue erected in Wakefield was unveiled on Wednesday. It is to the memory of the late Queen Victoria.

NOTES AND ANSWERS.

Provisions under which Municipal Audits are Made. Annual Reports of the Poor Law Inspectors. How to Become a Relieving Officer. More about the Making-up of Highways and Private Streets. Liability of Frontagers. A Hard Case of a Councillor Employed by a Contractor who Works for a City Council.

629.—**IS A COUNCILLOR EMPLOYED BY A CONTRACTOR WHO WORKS FOR A CITY COUNCIL DISQUALIFIED FOR OFFICE?**—Is a workman (a mason in this case), who is also a member of the city council, eligible for employment by any contractor who may be executing work for the said city council, the said contractor not being connected in any way with the council except as a contractor? The facts of the case are:—A working mason was last November elected a member of a city council, since then he has been out of employment, and was offered work by a contractor who was executing some work for the same city council. Not being certain of his position, he applied to the town clerk, who states that he has applied to the authorities, and the reply is that it is not advisable to do any work for such a contractor. I think that (if correct) this is taking things a little too far, and would like your opinion on same, being, myself—"IN THE DARK."

The relevant words of the Section of the Municipal Corporations Act which deals with disqualifications for being a town or city councillor, are—"A person shall be disqualified for being elected and for being a councillor, if and while he . . . . has *directly or indirectly*, by himself or his partner, any share or *interest* in any contract or *employment*, with, by, or on behalf of the council." Having regard to the italicised portions of this extract, we think there can be no doubt that if the councillor in question accepts work and payment therefor from a contractor under the council, he thereby becomes legally disqualified for office. Such councillor is, of course, "eligible for employment," but he will render himself liable to penalties for sitting and acting as a councillor while receiving payment from his employer in respect of work undertaken by the latter for the council. The case submitted seems a hard one, but the provision cited, though intended for the public good, must, like all other general rules, work hardship in individual cases at times. Cannot the contractor offer the councillor in question some other work than that being performed for the council, and transfer in his place another workman to the work to be done for the council?

630.—**POOR LAW.—Relieving Officers' Qualifications.**—I am thinking of making an application for an appointment as relieving officer, but am informed that it is necessary for me to know something about Poor Law. Will you kindly inform me if such is the case, and the best books to be had (if any) for the purpose, whether there is any age limit for such appointments, and if you think the experience of a builder having had control of workmen, &c., would be of any advantage in such a post?—"ANXIOUS."

Under the regulations of the Local Government Board, no person can hold the office of relieving officer unless he has reached the age of 21. Further, no person can hold this office unless he—

(1) Can keep accounts.

(2) Reside in the district for which he is appointed to act.

(3) Devotes his whole time to his duties as relieving officer, and

(4) Abstain from following any trade or profession and from entering into any other service. (See General Consolidated Order, 1847, Acts 162 and 164.)

The guardians may, however, allow a relieving officer to occupy certain other offices in the union, such as collector, registrar of births and deaths, &c.

Subject to the above rules, it will be for the guardians of any union where a vacancy in the office of relieving officer occurs, to lay down the conditions under which such vacancy will be filled. It is most likely that they will only appoint a young man, and it is prudent to require medical evidence of good health, inasmuch as these officers become entitled to superannuation. Also it is probable that a knowledge of the Poor Law, so far as it affects or deals with the duties of this office, will be required. "The Relieving Officers' Handbook," published by Hadden, Best, and Co. (at 5, West Harding Street, E.C., price 6s.), is a complete and practical guide to the law relating to the powers, duties, and liabilities of relieving officers. We should imagine that our correspondent's experience as a builder, having the control of workmen, would not be of any particular advantage in qualifying him for office as a relieving officer.

631.—**GENERAL DISTRICT RATE—Rating Owner instead of Occupier.**—(1) At our next urban district council election I intend, as a candidate, to propose that we compound the rates, or, in other words, that the rates be paid in with the rent. Can you please tell me where I can get any information in favour of the scheme?

(2) The rate collector for our township is also registrar for births and deaths. Could I get to know through any source what his income is a year for holding these offices?—"RATE COMPOUNDER."

(1) The statutory provision as to rating owners instead of occupiers to the general district rate is contained in Sec. 211 (1) (a) of the Public Health Act, 1875. It is there provided that the owner instead of the occupier may be rated at the option of the urban authority—

Where the rateable value of the premises is not above £10;

Where the premises are let to weekly or monthly tenants;

Where the premises are let in separate apartments, or where the rents become payable or are collected at any shorter period than quarterly.

In such cases, if the authority decide to rate the owners, they shall be assessed on a reduced estimate, not being less than two-thirds nor more than four-fifths of the nett annual value. Further, the urban authority may rate owners of such premises whether the premises are occupied or unoccupied, and in this case the owners shall be rated at one-half only of the ordinary amount at which the premises would be liable to be rated. Information on this matter may be obtained from any annotated edition of the Public Health Acts, or from Gaches' "Guide to the Public Health Acts" (Eyre and Spottiswoode, 3s. 6d.), but our correspondent will not find there much more information for his purpose than that we have summarised above.

(2) In this matter, we must leave our correspondent to obtain the desired information from local sources.

632.—**LIABILITY OF FRONTAGERS TO MAKE UP PRIVATE STREET A SECOND TIME—Can the Authority be Compelled to Adopt such Street under Sec. 150 Public Health Act?**—An urban district council has served notices upon frontagers to make up street in accordance with Sec. 150 of Public Health Act, 1875, and the preliminaries to such notices have apparently been complied with. The council has not adopted the Private Streets Works Act, 1892, nor any portion of the Public Health Acts Amendment Act, 1890. On disobedience to the notice will the council have power to compel the owners to make up the street, it having been done many years ago, and kept in repair by it ever since; or, assuming the council undertake the work, can it be compelled to adopt the treet and keep it in repair afterwards at the expense of inhabitants at large?—"A."

Unless it can be proved that the street has been taken over by the local authority, or is a "highway repairable by the inhabitants at large," the frontagers are liable to make up the street the second time in respect of all necessary works other than re-sewering. It has been held that the sewering of private streets can only be required once at the expense of the frontagers, but as regards other works necessary to "make up" a street, the urban council may call upon the frontagers to have them executed from time to time as occasion may require, unless and until the street has been declared a highway repairable by the inhabitants at large, though such works may have previously been done to the satisfaction of the local authority at the cost of the frontagers. ("Barry and Cadoxton Local Board v. Barry"—59 J.P., 421.) Unless the Private Street Works Act has been adopted, the urban authority cannot be compelled to take over a private road or street, even though it has been made up to its satisfaction. This matter is governed by Sec. 152 of the Public Health Act, 1875, which provides that, when any private street in an urban district has been sewered, levelled, paved, &c., to the satisfaction of the urban authority, such authority *may, if it thinks fit*, by notice in writing put up in any part of the street, declare the same to be a highway, and thereupon it shall become a highway repairable by the inhabitants at large.

633.—**AUDIT OF MUNICIPAL ACCOUNTS.—Reports of Local Government Board.—Privileged.**—(1) Can an independent auditor be appointed without remuneration from the body of the ratepayers to audit the accounts of a borough council on the proposition of an association?

(2) What constitutes a town's meeting?

(3) Are the reports of a Local Government Board inspector held to be private, or can they be had printed? and where?—"S. X."

(1) Our correspondent writes from a district which has recently been converted into a borough. The accounts of the authority were formerly subject to audit by the auditor appointed under the Local Government Board. By an "independent auditor" we presume "S. X." means the auditor or auditors who are elected to audit the accounts of borough councils in pursuance of the Municipal Corporations Act, 1882. That Act provides (Sec. 25), that in every municipal corporation there shall be three auditors, two elected by the burgesses, and one nominated by the mayor. The elective auditors must be qualified to be councillors: the mayor's auditor must be a member of the council. They hold office for one year. There is no provision in the Act for payment to such auditors for their services. Under Sec. 246 of the Public Health Act, 1875, however, a borough auditor may claim from the council a reasonable remuneration, not being less than two guineas a day, for auditing the accounts of the receipts and expenditure of the council *acting as the urban authority* under that Act. It is, of course, open to the association referred to, or any other body or person, to suggest suitable persons for election to office in this capacity, but the matter is one for the burgesses in the case of elective auditors, or the mayor in the case of the mayor's auditor, to decide.

(2) We should be glad if our correspondent would explain what is meant by this question exactly. At present we can only say that a town's meeting would ordinarily mean a gathering of the burgesses, or such of them as chose to assemble, after due notice, to discuss or consider and decide upon any matter of public importance.

(3) The reports of the Local Government Board inspectors are privileged documents. Unless the Board decide otherwise, such documents are not generally printed or published; they are even privileged from production in a Court of Justice, however much the parties may desire to put them in evidence (as was shown in a recent case where the question arose as to whether a smallpox hospital was a nuisance, and the report of one of the Local Government Board's medical inspectors seemed likely to be relevant). In some cases, however, these reports are published, as, for example, the annual reports of the Poor Law inspectors, which are appended to the Local Government Board's annual report.

634.—**MAKING UP HIGHWAY—Widening—Powers of Local Authority.**—I possess some land frontage to an old highway of considerable antiquity—say, certainly over 100 years old. This road has been kept in repair by the parish during the time of the oldest inhabitant, but it cannot at present be proved that it was repaired previous to the 1835 Highways Act. The local authorities seek to compel me to widen the road, give the land, and at my own cost pave and channel and make up the new part of road, if I build on this frontage. They admit they have no right to make this request all the time I do not build, but the fact of building converts the old highway into a new street, under the Private Streets Act, 1892, and it gives them the power. If I set back as they request, it would bring my line of frontage behind that of six adjoining houses. Other frontagers have set back on the other side of the road, but not on either side of my land. It is not a question of building line—that is all right—but simply one of widening the road. Are there any works published bearing on the question?—"M. A. P."

We understand the question our correspondent desires answered to relate to the widening of the street at his expense. Under

Sec. 157 of the Public Health Act, 1875, an urban authority (including a borough council) may make bye-laws with respect to the level, width, and construction of new streets. It has been held that an old highway may become a new street within the meaning of this section if houses are built along its sides, so as to make it a street in the ordinary acceptation of the term. The requirements of the local authority as to the width of the new streets must be reasonable, and cannot differentiate in favour of one person or class as against another in the same street. In the present instance, we gather that the authority requires our correspondent to throw part of his land into the "new street," and set back his proposed buildings behind the line of certain adjoining houses in the same street. It seems to us that this requirement cannot be enforced, and that the authority cannot insist on the new buildings being set back beyond the line of the six adjoining houses. We assume that there are bye-laws on the subject, and that the adjoining houses have been set back so as to give the width to the street prescribed by these bye-laws. The authority need not apparently wait until our correspondent is building in order to secure the proper width of the "new street" so far as his frontage is concerned. It is not clear to us that the highway is not repairable by the inhabitants at large, and if it is so repairable, the authority cannot, of course, require the street to be made up at the expense of the frontagers.

We shall be glad to hear further from our correspondent if we have not rightly apprehended his question; but in connection with any further communication may we ask him to write plainly, as we have had difficulty in deciphering words in the query now printed.

635.—**ELECTIVE AUDITORS—Can they Incur Expenses at their Election.**—An idea seems to prevail with many that in connection with the election of "elective auditors" on 1st March to audit the accounts of local authorities, no money is permitted by law to be expended either in issuing addresses or in any other form of canvass or advertisement, and as I am unable to discover any clause in the Public Health Act, 1875, or in the Municipal Corporations Act, 1882, affecting the question, it would be just now of great interest to your many readers to have your opinion thereon. If you could kindly insert a short reply in next issue (as time is so short), I am confident it would be appreciated.—"H."

The only statutory provision on this matter appears to be that contained in Sec. 5 (1) of the Municipal Elections (Corrupt and Illegal Practices) Act, 1884. It is there enacted as follows:—"Subject to such exception as may be allowed, in pursuance of this Act, no sum shall be paid, and no expense shall be incurred by, or on behalf of, *a candidate at an election*, whether before, during, or after an election, on account of, or in respect of, the conduct or management of such election, save that in the case of an election of a councillor a sum may be paid and expense incurred not in excess of the maximum amount following." The section then goes on to prescribe a maximum expenditure for councillors of £25, subject to an addition where there are more than 500 electors in the borough or ward. The exception referred to in the opening words of the section may arise under Sec. 20 of the same Act, which gives the High Court and the Election Court power to exempt innocent acts which otherwise would constitute an "illegal practice" from the penalties prescribed for such practices. There appear to be no other statutory enactments on the point raised by our correspondent. It seems clear, therefore, that candidates for office as elective auditors cannot lawfully incur expenditure in connection with their candidature.

MUNICIPAL BUILDINGS FOR BOURNEMOUTH.

IMMEDIATE steps are to be taken towards the provision of municipal buildings for Bournemouth. The borough engineer (Mr. F. W. Lacey, F.R.I.B.A.), and Mr. C. E. Mallows, F.R.I.B.A., have been appointed joint architects to prepare a scheme and plans. The contemplated cost of the building is about £70,000. Including the site, which has already been acquired, the total outlay is equal to £84,000. The site is beautifully situated in the centre of the town. The scheme is to include the provision of a court house and a town hall to seat 2,000 persons. Accommodation will also be provided for the tramway offices, free library, and education offices.

Official Advertisements.

COUNTY BOROUGH OF WEST HAM.

PRIVATE STREET WORKS ACT, 1892.

TO CONTRACTORS.

THE Council hereby invite TENDERS for MAKING-UP the following STREETS:—
Totnes Road.
Charford Road.

Plans may be seen, and specification, form of tender, and further particulars obtained at the Office of the Borough Engineer, Town Hall, West Ham, E., upon payment of One Pound, which will be returned upon receipt of a bona-fide tender.

Tenders, endorsed "Tender for Private Street Works," to be sent to my office not later than 4 o'clock on Tuesday, 28th February, 1905.

The Council do not bind themselves to accept the lowest or any tender.

The contractor will be required to enter into a bond with two sureties for the due performance of the contract, and no work will be ordered under the contract until such bond has been duly executed.

The contractor whose tender is accepted, and with whom a contract is entered into, will be required to pay to the whole of his workmen such rate of wages, and observe such hours of labour, as are recognised by the Workmen's Trade Unions, and shall not assign, nor underlet, or make a sub-contract with any person or persons for the execution of any part of such work. In the event of any breach of such agreement the Council will enforce the penalty clause in its entirety.

By order of the Council.
FRED. E. HILLEARY,
Town Clerk.

Town Hall,
West Ham, E.

COUNTY BOROUGH OF WEST HAM.

TO BUILDERS AND CONTRACTORS.

THE Council hereby invite TENDERS for—

1.—The Extension of Public Baths, Balaam Street, Plaistow.
2.—Alteration to Prisoners' Cells, Quarter Session Court, West Ham Lane, Stratford.

Plans may be seen, and specification, form of tender, and further particulars obtained at the Office of the Borough Engineer, Town Hall, West Ham, E., on and after Thursday, the 16th February, 1905, upon payment of one pound in respect of each contract, which will be returned upon receipt of bona-fide tenders.

Tenders, endorsed "Tender for Baths Extension" and "Alterations to Prisoners' Cells," to be sent to my Office not later than 4 o'clock on Tuesday, 28th February, 1905.

The Council do not bind themselves to accept the lowest or any tender.

The contractor will be required to enter into a bond, with two sureties, for the due performance of the contract, and no work will be ordered under the contract until such bond has been duly executed.

The contractor whose tender is accepted, and with whom a contract is entered into, will be required to pay to the whole of his workmen such rate of wages, and observe such hours of labour, as are recognised by the workmen's trade unions, and shall not assign, nor underlet, or make a sub-contract with any person or persons for the execution of any part of such work. In the event of any breach of such agreement the Council will enforce the penalty clause in its entirety.

By order of the Council.
FRED. E. HILLEARY,
Town Clerk.

Town Hall,
West Ham, E.
9th February, 1905.

BOROUGH OF LEIGH.

LEDGER CLERK.

THE Corporation of Leigh require the services of a LEDGER CLERK in the Borough Accountant's Office. Salary £78 per annum. One having had experience in a borough accountant's office preferred. Applications, stating age and experience, and endorsed "Ledger Clerk," accompanied by copies of not more than three testimonials of recent date, must reach the undersigned on or before 12 noon, of Wednesday, the 22nd February, 1905.

PEREGRINE THOMAS,
Town Clerk.

Town Hall, Leigh,
8th February, 1905.

Official Advertisements.

BOROUGH OF SOUTHEND-ON-SEA.

TO CHEMISTS, GROCERS, BAKERS, &c.

THE Corporation invite TENDERS for Supplying the Sanatorium with Chemists' and Druggists' Goods, Groceries, Bread, Butchers' Meat, Milk, Brandy, and Disinfectants, and other articles, for One Year, from the 31st March next.

Forms of tender may be obtained at my Office.

Sealed tenders, properly filled up and endorsed "Tender for Sanatorium," accompanied by samples as far as practicable, to be delivered at my Office on or before Wednesday, the 1st March.

The Corporation will not be bound to accept the lowest or any tender.

By order.
WILLIAM H. SNOW,
Town Clerk.

Southend-on-Sea.
7th February, 1905.

BOROUGH OF SOUTHEND-ON-SEA.

GENERAL STORES.

THE Corporation invite TENDERS for the SUPPLY of the following ARTICLES:—
Hay, Straw, and Provender.
Stoneware Pipes, Bends, Junctions, Gullies, &c.
Portland Cement, Lime, and Chalk.
Timber.
Iron Castings (Manhole Covers, Lamp Columns, &c.).
Iron, Steel, Lamps, Road Tools, and Ironmongery.
Pitch and Creosote Oil.
Tar, Oils, and Disinfectants.
Tar Paving and Tar Macadam.
Coal and Coke.
Flints, Bricks, Sand, Gravel, &c.
Guernsey Granite Macadam and Granite Macadam other than Guernsey.
Granite Kerb and Channel.
Saddlery.

Forms of tender may be obtained upon application to Mr. E. J. Elford, M.I.M.E., Borough Surveyor, Southend-on-Sea.

Tenders, endorsed "Yearly Contracts," to be delivered at my Office not later than 12 o'clock noon, on Thursday, the 2nd March.

The Corporation will not be bound to accept the lowest or any tender.

By order.
WILLIAM H. SNOW,
Town Clerk.

Town Clerk's Office,
Southend-on-Sea.
7th February, 1905.

BOROUGH OF SOUTHWARK.

ERECTION OF STABLES, GREENMORE WHARF.

THE Borough Council invite TENDERS for the ERECTION of STABLES on their Greenmore Wharf at Bankside, S.E.

Plans and specifications may be seen, and forms of tender and further particulars obtained, between the hours of 10 a.m. and 5 p.m., on application to Mr Arthur Harrison, Borough Engineer, Town Hall, Walworth Road, S.E., upon payment of a deposit of £5, which will be returned on receipt of a bona-fide tender for the work.

The person whose tender is accepted will be required to enter into a contract, with two sureties, for the due performance thereof.

The contractor will be required to pay all workmen in his employ the current trade union rate of wages, and to observe trade union conditions of labour, and not assign or under-let, or make a sub-contract with any person or persons for the execution of any part of the work.

The Council does not bind itself to accept the lowest or any tender.

Tenders, endorsed "Tender for the Erection of Stables," to be sent to my Office not later than noon on Wednesday, the 1st March, 1905,

J. A. JOHNSON,
Town Clerk.

Town Hall,
Walworth Road, S.E.
9th February, 1905.

WANTED, Appointment as Assistant Storekeeper, &c. Age 20. A., Shere, Guildford.

Official Advertisements.

URBAN DISTRICT COUNCIL OF CHISWICK.

APPOINTMENTS.

THE Council invite applications for the following APPOINTMENTS:—

1. SECOND ENGINEERING ASSISTANT in Surveyor's Office. Salary £75 a year, rising £7 10s. annually to £90.

2. JUNIOR CLERK (shorthand writer and typist) in Surveyor's Office. Salary £40 a year, rising £5 annually to £50.

3. JUNIOR CLERK (shorthand writer and typist) in Clerk's Office. Salary £75 a year, rising £7 10s. annually to £90.

Applicants for 1 and 3 must have had experience in a municipal office.

Forms of application, with further particulars, may be obtained from the undersigned by forwarding a stamped addressed foolscap envelope. The applications must be received not later than Thursday, the 2nd March, 1905.

Canvassing is prohibited and will disqualify.

ERNEST F. COLLINS,
Clerk of the Council.

Town Hall, Chiswick, W.
15th February, 1905.

HOLBORN UNION.

CONTRACTS FOR SUPPLIES.

THE Guardians of the Poor of the Holborn Union invite TENDERS for the SUPPLY during the six months from the 26th March to the 30th September, 1905, of the undermentioned ARTICLES for the use of their Workhouse, Shepherdess Walk, City Road, N.; Casual Wards, Little Gray's Inn Lane, E.C.; Infirmary, Archway Road, N.; Schools and Workhouse, Mitcham, Surrey; and Administrative Offices, Clerkenwell Road, E.C., viz.:—Bread (Infirmary), Flour and Cones, Meat, Fish, Cheesemongery, Milk, Potatoes, and other Vegetables, Grocery, Tea, Cornchandlery, Coal, Coke, and Gas Coal.

Forms of tender, with addressed envelopes to enclose same, may be obtained at the Guardians' Offices, Clerkenwell Road, E.C., after the 21st instant, between 10 a.m. and 12 noon, or by forwarding to me a sufficiently stamped directed envelope, draft size.

Tenders (which must be accompanied by distinctly marked samples as regards flour, grocery, tea, and cornchandlery), must be forwarded to these offices, situate as aforesaid, before 12 noon, on Wednesday, the 8th March, 1905, and all tenders and samples not so marked and forwarded will be rejected.

The time of delivery of tenders and samples will be rigidly enforced. The accounts will be paid quarterly.

No person will be required to attend on the day the tenders are opened, but the result (except as regards tea) may be known on application at these Offices between 10 o'clock a.m. and 12 noon on the following day.

By order.
J. ALLAN BATTERSBY,
Clerk to the Guardians.

Holborn Union Offices,
53, Clerkenwell Road, E.C.
14th February, 1905.

PARISH OF SAINT LEONARD, SHOREDITCH.

RELIEVING OFFICER WANTED.

THE Guardians of the Poor of this Parish require the services of a RELIEVING OFFICER. Salary £140 per annum, rising £5 annually to £150 per annum, and to £160 per annum after the expiration of five years' service, subject to the deductions under the Poor Law Officers' Superannuation Act, 1896.

The officer must reside within the district to which he is assigned, and give his whole time to the performance of the duties of his office.

Security to the amount of £100 will be required.

Forms, upon which application must be made, can be obtained at my office, as under, by forwarding a stamped addressed foolscap envelope, or by personal application, and are to be returned to me, endorsed "Relieving Officer," not later than Friday, the 24th instant.

Personal canvassing, either directly or indirectly, on behalf of a candidate, will disqualify such candidate.

By order.
ROBERT CLAY,
Clerk to the Guardians.

Clerk's Office,
213, Kingsland Road, N.E.
February 14, 1905.

Official Advertisements.

COUNTY BOROUGH OF NORTHAMPTON.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

THE Corporation invite Applications for the Appointment of SECOND ENGINEERING ASSISTANT in the Borough Engineer and Surveyor's Office at a commencing salary of £100 per annum, rising by annual increments of £10 per annum to a maximum of £130 per annum.

Candidates must have had good general experience in Municipal and Sanitary Engineering.

Preference will be given to candidates between the ages of 24 and 28 years.

Applications, stating age and qualifications, in candidates' own handwriting, accompanied by copies of not more than three recent testimonials, must be endorsed "Second Engineering Assistant," and delivered at the Borough Engineer's Office not later than noon on Tuesday, the 28th instant.

Canvassing directly or indirectly will disqualify.

HERBERT HANKINSON,
Town Clerk.

Guildhall, Northampton.
13th February, 1905.

PARISH OF CHELSEA.

CONTRACTS FOR SUPPLIES.

THE Guardians of the Poor are prepared to enter into contracts for Six Months, commencing the 29th March, 1905, for the SUPPLY of the following ARTICLES, viz.:—

Cheesemongery.	Grocery (excluding Tea).
Coals.	Meat.
Coke.	Milk.
Cornchandlery.	Poultry, Brawn, and Rabbits.
Eggs.	Tobacco.
Fish and Ice.	
Flour.	

Forms of tender, with all necessary information, may be obtained after the 22nd February inst., upon application at the office of the Guardians, 250, King's Road, Chelsea, where tenders must be delivered before 12 at noon, on Tuesday, the 7th March next, for consideration at a Board Meeting, at 3 o'clock on Wednesday, the 8th March next.

The Guardians do not bind themselves to accept the lowest or any tender.

By order.
JOSHUA DOWLING,
Clerk to the Guardians.

250, King's Road, Chelsea, S.W.
17th February, 1905.

BOROUGH OF FULHAM.

ANNUAL CONTRACTS.

THE Fulham Borough Council is prepared to receive TENDERS for the following, for the 12 months ending 31st March, 1906:—

Broken Granite.	Electrical Stores.
Paving, Kerbing, &c.	Flints.
Timber.	Ballast and Sand.
Stable Utensils.	Brick Lime and Cement.
Horse Provender (for 6 months only).	Lamp Fittings.
Oilman's Goods.	Drain Pipes, &c.
Plumber's Work.	Tools and Implements.
Dust Baskets.	Castings.
Disinfectants.	Scavengers' Brooms.
Horse Hire.	Uniforms.
Reconstruction of Combined Drainage.	Printing.
	Stationery.

Tenders must be made on printed forms, specifying conditions of contract, provided by the Council, sealed and endorsed, "Tender for ——," and delivered at the Town Hall by 4 p.m. on Wednesday, 15th March, 1905.

The several specifications may be seen and any further information obtained at the Town Hall.

The Council does not pledge itself to accept the lowest or any tender.

By order.
R. M. PRESCOTT,
Town Clerk.

Town Hall, Fulham.

AGENTS REQUIRED in unrepresented districts for the Imperial Accident, Live Stock, and General Insurance Co., Ltd. Estd. 1878. Departments: — Personal Accidents, Carriage and Drivers' Accidents, Horse and Cattle Insurance. Claims paid £300,000. Address Mr. B. S. Essex, Manager, 17, Pall Mall East, London, S.W.

Official Advertisements.

E. R.

THE Receiver of Wreck, Custom House, Lowestoft, has for SALE 41 Electric Light Arc Globes of the following dimensions:—Diameters: Top to bottom, 15¾ inches; middle, 16½ inches; top opening, 7¾ inches; bottom opening, 3¾ inches. Suitable for lighting of streets or workshops. Offers invited. Purchaser to pack and remove at own risk. The globes are in good condition, and are being sold for salvage.

LONDON COUNTY ASYLUMS.

CONTRACTS for the SUPPLY of PROVISIONS and STORES, also for the PURCHASE of WASTE MATERIALS and TUNING PIANOS.

THE Asylums Committee of the London County Council are prepared to receive TENDERS for the SUPPLY of the following as required from April 1, 1905:—

For Seven calendar Months, Butchers' Meat (English killed, American Chilled and Frozen, also Kosher Meat to Colney Hatch), Preserved Meat, Extract of Beef, Flour, Bran and Middlings, Cornchandlery, Sugar, Jams, &c., Groceries, Margarine Mixture, Cheesemongery, Currants, Raisins, &c., Cocoa (Flake), Potatoes, Carrots and Onions, Oranges and Lemons, Hay and Straw (English), Spirits and Wines (for the Sick), Tobacco and Snuff, and Brewer's Grains.

For Twelve calendar Months, Yeast, Ale and Stout, Soap, Dress Materials, Blankets, Flannels, Linens, Hats and Bonnets, Haberdashery, Calico, Hollands, &c., Counterpanes, Hosiery, Shawls, Gloves, &c., General Drapery, Cloth, Horsehair, Chairs, Blind Fittings, Bent-wood Chairs, Carpets, Linoleums, &c., Oils, Oilmen's Goods, Leather, Leather Sundries, Grindery, Ironmongery, &c., Gardening Tools, Hardware, Tinware, Wrought-Iron Pipe and Fittings, Brushes, Turnery, &c., Lead and Glass, Builders' Materials, Timber, Leather Belting and Packings, Disinfectants, Electric Light Sundries, and Baskets, to the Asylums at

1. Banstead, near Sutton, Surrey.
2. Cane Hill, Coulsdon, Surrey.
3. Claybury, Woodford, Essex.
4. Colney Hatch, New Southgate, N.
5. Hanwell, W.
6. Heath Asylum, Bexley, Kent.
7. Horton, Epsom, Surrey.
8. Manor Asylum, Epsom, Surrey.
9. Epileptic Colony, Ewell, Surrey.

Also for the purchase of waste materials, and the tuning of pianos, from April 1, 1905, to March 31, 1906.

Printed forms of tender (upon which alone tenders will be received), conditions of contract, and particulars of estimated quantities, may be obtained at the Office of the Asylums Committee, No. 6, Waterloo Place, S.W., on and after Tuesday, February 21, 1905.

Sealed tenders must be delivered at the said Office by or before 10 a.m. on Tuesday, March 7, 1905.

Tenders will be opened on the same day, and the result will be communicated to successful contractors after Wendesday, March 15th, 1905.

Persons tendering will be required to declare in their tenders that they pay such rates of wages and observe such hours of labour as are recognised and in practice obtained at the date of the tender by the trades unions of the district where the work is to be done, and where no trades union exists, such rates of wages and hours of labour as are generally accepted as fair in the trade.

The Asylums Committee do not bind themselves to accept the lowest tender for supplies or any tenders, and reserve to themselves the right of accepting such tenders, or part thereof, as they may think fit to select.

H. F. KEENE,
Acting Clerk of the Asylums Committee.

London Asylums Committee Office,
6, Waterloo Place, S.W.
14th February, 1905.

ASSISTANT SURVEYORS, Admiralty Works Department at H.M. Naval Establishments at Home and Abroad.

A COMPETITIVE EXAMINATION in technical subjects is about to be held for TWO APPOINTMENTS. Age limits 21 to 30.

Salary commencing at £150 per annum, with prospects of promotion to higher posts. Examination fee £3. For particulars and forms of application apply to

The DIRECTOR of WORKS, Admiralty.
21, Northumberland Avenue, London, W.C.

Official Advertisements.

HESTON AND ISLEWORTH URBAN DISTRICT LIBRARIES COMMITTEE.

ASSISTANT LIBRARIAN.

REQUIRED immediately, an ASSISTANT LIBRARIAN. Applications will be considered only from candidates not under 20 years of age, who have had good all-round experience in public library work, and are well educated.

Salary £75 per annum. Applications, stating full particulars, and accompanied with copies of not more than three testimonials, to be sent in by Feb. 27th to the Librarian, Public Library, Hounslow, W.

CORPORATION OF ECCLES.

LIBRARIAN.

THE Corporation of Eccles require the services of a LIBRARIAN, to take charge of their Library and Reading Room in the Vestry Hall, Patricroft.

Applicants must have had previous experience in similar duties. Commencing salary £90 per annum.

Applications, stating age and qualifications, accompanied by not more than three recent testimonials, to be delivered to the undersigned (marked "Librarian") not later than noon on Monday, the 27th instant.

EDWIN PARKES,
Town Clerk.

Town Hall, Eccles.
15th February, 1905.

PARISH OF SAINT MARY, ISLINGTON.

CONTRACTS.

THE Guardians of the Parish of St. Mary, Islington, invite TENDERS for the SUPPLY of the undermentioned ARTICLES, for Six Months and Twelve Months respectively, commencing March 26, 1905, to be delivered in such quantities as and when required at the St. John's Road Workhouse, the Cornwallis Road Workhouse, the Highgate Hill Infirmary, and the Guardians' School, Hornsey Road, viz.:

FOR SIX MONTHS.

Flour and Cones.	Eggs.
Meat.	Milk.
Cheesemongery.	Grocery.
Margarine.	Extract of Meat.
Potatoes and other Vegetables.	Forage.

FOR TWELVE MONTHS.

Peas, Oatmeal, &c.	Furnishing Ironmongery.
Soap and Candles.	General Ironmongery.
Oilman's Goods.	Electrical Requirements.
Shoes and Boots.	Engineers' Work, &c.
Leather, &c.	Painters' Colours, &c.
Linen and Woollen Drapery.	Earthenware.
Haberdashery and Hosiery.	Tobacco.
Clothing.	Wine and Brandy.
Coffins.	For the Performance of Funerals.
Brooms, Brushes, Combs, &c.	

Sealed tenders must be delivered at the undermentioned Offices on or before Tuesday, March 7, 1905, addressed to the Guardians, and endorsed "Tender for ——."

The tenders will be opened at a meeting of the Guardians to be held on Thursday, March 9, at half-past two o'clock in the afternoon, at the undermentioned offices. The Guardians do not bind themselves to accept the lowest or any tender.

Payment will be made monthly for flour, meat, cheesemongery, and milk.

Printed forms of tender (with conditions of contract and estimated quantities) must be obtained from the Clerk personally, or a stamped addressed foolscap envelope may be sent, as no others will be received.

By order.
EDWIN DAVEY,
Clerk.

Guardians' Offices,
St. John's Road, Upper Holloway, N.
9th February, 1905.

LIGHTNING CONDUCTORS.

J. LEWIS,

5 and 6 Great Winchester Street, London, E.C.

TELEPHONE No. 3053 CENTRAL.

TO SUBSCRIBERS.

A New and Enlarged Series of THE MUNICIPAL JOURNAL will be commenced with the issue of March 3, after which date the price will be Twopence weekly.

Current subscriptions will run to the end of the period for which they were accepted, and will be renewable at th revised rate for the New Series as set forth below.

SUBSCRIPTION TERMS

FOR THE UNITED KINGDOM.

Post free.

Three Months	2s. 5d.
Six Months	4s. 9d.
Twelve Months	9s. 6d.

ABROAD.

Six Months	6s. 6d.
Twelve Months.	13s. 0d.

Cheques and Postal Orders to be made payable to EDWARD LLOYD, Limited, 12, Salisbury-square, London, E.C., and crossed "London and Westminster Bank."

NOW READY.

1905

1905

THE MUNICIPAL YEAR BOOK

THE MUNICIPAL YEAR BOOK

OFFICIALLY REVISED.

BIGGER AND BETTER THAN EVER

AN ENCYCLOPÆDIA OF CIVIC LIFE.

Nearly 700 Pages.

Demy 8vo, cloth gilt, 3s. 6d. By post 4s.

NOW READY.

1905

1905

THE MUNICIPAL YEAR BOOK

THE MUNICIPAL YEAR BOOK

A GUIDE TO THE MUNICIPAL AFFAIRS OF THE UNITED KINGDOM.

A COMPLETE MUNICIPAL DIRECTORY

NOW READY.

1905

1905

THE MUNICIPAL YEAR BOOK

THE MUNICIPAL YEAR BOOK

Nearly 700 Pages.

Demy 8vo, cloth gilt, 3s. 6d. By post 4s.

LONDON: EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, E.C.

JUST PUBLISHED.

Demy 8vo. Cloth. 10s. 6d. net.

URBAN POLICE AND SANITARY LEGISLATION, 1904.

BY

F. N. KEEN

(Parliamentary Barrister),

Author of "Markets, Fairs, and Slaughter-houses," &c.

This book comprises a Collection of Provisions contained in the Local Improvement Acts obtained by English Urban District Councils in the year 1904, after Consideration by the Police and Sanitary Committee of the House of Commons.

P. S. KING & SON,

ORCHARD HOUSE, WESTMINSTER.

TO MUNICIPAL AUTHORITIES.

First-class Orchestras, of from 4 to 50 Performers, supplied *at minimum rates* for the coming Season at Watering Places and Spas.

J. HERBERT JAY,
10 & 11, Jermyn Street, Piccadilly.

Telephone—6534 Gerrard.

The Cream of Cocoas.

EPPS'S COCOA

Contains all the nutriment

of the Choicest Nibs.

MUNICIPAL JOURNAL

FRIDAY, FEBRUARY 17, 1905.

NOTES AND COMMENTS.

Local Taxation Returns.

THE publication this week of the summary of the local taxation returns has given reactionary publications like the *Daily Mail* and the *Daily Express* an opportunity of which they have not failed to take advantage. Tirades against "municipal extravagance" have been the rule, and the only logical conclusion to be drawn from them is that local authorities of all classes should be summarily abolished. That, however, is not the object of the *Daily Mail* and *Daily Express*. All these disinterested organs of public opinion want to do is to prevent public bodies running services whose profits would be useful for company dividend purposes. Give the companies the water, gas, tramways, and electricity undertakings now owned by municipal

corporations and other authorities, and the *Daily Mail* and *Daily Express* campaign would come to an end. Companies are not anxious to run such things as workhouses, schools, and parks and open spaces, for the very simple and natural reason that there is no money to be obtained from them. If the true inwardness of the anti-traders' movement were generally appreciated, as it is by the great majority of our readers, the *Daily Mail* and the *Daily Express* would not matter. But there are others, unfortunately. Pressure of space prevents the publication in this week's issue of our analysis of the new return, but it will appear next week.

Tramways v. Motor 'Buses.

IN another column we publish an interesting report which the Wolverhampton Tramways Committee has prepared on the subject of substituting motor omnibuses for tramways on a certain route. It is interesting mainly because an attempt is made to estimate the costs—both capital and maintenance—of the two systems, but in our opinion several criticisms may be offered against these figures which entirely upset the committee's conclusions. Taking the estimates of capital expenditure first, we find that the committee estimates three double-deck cars in the case of the tramways, and three double-deck motor omnibuses in the alternative. Now, it is absurd to suggest that three double-deck motor omnibuses will carry as many passengers as three double-deck tramcars. At least five 'buses would have to be purchased to accommodate the same people as three double-deck tramcars. The comparison is not, under these circumstances, a fair one, as one scheme provides for about two-thirds as much carrying capacity again as the other. This consideration invalidates, in our opinion, the whole of the subsequent estimate; but even if it did not, the maintenance and renewals charges in the case of the motor omnibus are probably under-estimated. When it is remembered that a set of reliable omnibus tyres cost about £120, and that a new set would be required at least every year, the committee's estimate for "tyre renewals" strikes us as being very much below the mark. We see that the report referred to is to be further considered

An Exaggerated Case.

ON the general question of motor omnibus competition with tramways, a great deal of twaddle is being talked and written by people who ought to know better. As a test of what financiers themselves think of the prospects of motor 'buses, and especially of tramcars drawn by petrol motors, it is suggested that the London County Council should offer a concession of the North London system to any substantial company that will take it. The conditions would be that the company should bear the cost of adapting the present lines to the proposed method of traction, should supply the necessary rolling stock, and provide the necessary power, charge the present fares, and run as frequent a service as now exists, the company to pay to the County Council substantial penalties in the event of failure to carry out the terms of its agreement, and to hand over to the Council again the tramway lines as they are now. It is predicted that at the end of the company's experiment rents would be lower in North London than in any part of the county, for the simple reason that most of the inhabitants would have transferred their homes to other districts.

The Rival Methods.

CONSIDERED from the standpoint of the public, the prospect is not an alluring one if the displacement of the tramcar by the motor 'bus becomes an accomplished fact. The tramcar can accommodate from 60 to 80 passengers, while the capacity of the ordinary motor 'bus is limited to 30. There would need to be, then, more than twice the number of motor 'buses than there are tramcars. The motor 'bus would not be confined to a particular portion of the road; it could rush along at the rate of twenty miles an hour—providing that the present regulations were maintained—whenever and wherever it pleased. The condition of the streets of London, and all great cities and towns, under these circumstances, can be imagined. So can the prospects of working to a time-table. Electric tramways, too, possess an immeasurable advantage over motor 'buses in the matter of control. On the former, when the car is at a standstill, the propelling force is quite detached from the vehicle; on the motor 'bus the engines are running, whether the vehicle is moving or is stationary. Accidents in the case of the tramcar are for this reason reduced to a minimum; motor vehicles frequently get beyond control from mechanical causes, and rush to disaster.

The Question of Cost.

THE claim that the motor 'bus can be run at the same cost as a tramcar is scoffed at by people who really know what they are talking about. And the cost of maintenance, it must be remembered, has an important influence upon the fares that are charged. The fact that motor 'buses run on ordinary roads, and not on fixed rails, enormously increases the amount of power required to propel them. Propulsion depends mainly upon resistance, and the resistance of steel rails has been demonstrated by railway and tramway practice to be considerably less than that of the best paved roads. In quite a considerable portion of the average tramway run no current whatever is consumed, which represents a saving that under no circumstances could be effected by the motor 'bus. From the three vital points of engineering, economy, and public safety, therefore, the motor 'bus completely fails when compared with the tramcar. The maintenance costs of municipal tramways are even now much higher than they would be were the various charges equitably apportioned. The municipal tramway, it must always be remembered, has to pay for paving which it never touches, and which benefits every other kind of street locomotion except itself. In some cases the tramways are even debited with the whole cost of road making. The interest on money borrowed to pay for tramway paving is one of the largest factors in tramway maintenance. Is the tramway to continue paying for paving works whose advantages are chiefly shared by its greatest rival, the omnibus? Another outstanding question that will have to be settled is that of rating. The tramway pays rates in the same way that a railway company pays them, and the motor 'bus proprietors must be prepared for the exercise of a similar privilege. At present the 'buses pay no rates in respect of the property they use for revenue-producing purposes, and they run, as we have seen, over pavements paid for out of the tramway receipts. The omnibus companies cannot expect to get the tramways' business without undertaking the obligations of the tramways.

Official Advertisements.

POPLAR AND STEPNEY SICK ASYLUM DISTRICT.

CONTRACT FOR SUPPLIES, &c.

THE Managers of the above District give Notice that they will meet at the Asylum at Bromley, London, E., on Tuesday, the 14th day of March, 1905, to receive and open TENDERS from persons willing to supply ARTICLES to be furnished by the following Tradesmen, for the use of their Asylum at Devons Road, Bromley, London, E., and also for the Branch Asylum at Blackwall, from the 26th March next, for the following periods, viz.:—

For SIX MONTHS:—Baker, Butcher, Beef Tea and Meat Extracts, Fishmonger, Potato Salesman, Butter, Cheesemongery and Egg Merchant, Grocer, Mealman, Brewer, and Milkman.

For TWELVE MONTHS:—Poulterer, Aerated Water Manufacturer, House Coal, Steam Coal, Coke Merchant, Soapmaker, Oilman, Brushmaker, Earthenwaremen, Cutler and Tinman, Ironmonger, Timber Merchant, Building Material, Merchant, Plumbers' Material Merchant, Porters' Uniforms Contractor, Boot and Shoe Maker, Slopseller, Outfitter and Clothier, Linendraper, Waterproof Goods Manufacturer, Printer of Minutes, Stationer, Methylated Spirit Distiller, Drug Manufacturer, Undertaker, Laundry Work Contractor, and Hairdresser.

Tenders will also be received at the same time from persons willing to contract for the PURCHASE of KITCHEN REFUSE and RAGS, &c., for twelve months from 26th March, 1905, and applications and prices will also be considered from local tradesmen who are desirous of being appointed to SUPPLY GOODS out of Contract and to execute the various Engineering and other Jobbing Work of the two Institutions.

Printed forms of tender, which alone can be received, and which will contain an estimate of the quantities required and the directions to be observed by the parties tendering, may be obtained at my Office at the Asylum, daily, between the hours of 10 a.m. and 4 p.m. (Saturdays 10 a.m. and 1 p.m.), or will be sent by post upon receipt of a stamped addressed foolscap envelope; and the same must be returned to me not later than 10 a.m. on Tuesday, the 14th March, 1905.

Parties whose tenders are accepted will be informed thereof by letter.

The Managers do not bind themselves to accept the lowest or any tender.

By order.
WALTER R. FOSKETT,
Clerk to the Managers.

Clerk's Offices,
Bromley-by-Bow, E.
February, 1905.

POPLAR AND STEPNEY SICK ASYLUM DISTRICT.

TO TEA MERCHANTS.

THE Managers of the Poplar and Stepney Sick Asylum District invite TENDERS for the SUPPLY of (a) 700lbs. CEYLON TEA, duty paid, at 1s. 7d per lb.; (b) 2,400lbs. Assam Tea, duty paid, at 1s. 5d. per lb.; and (c) 1,200lbs. China Moning Tea, duty paid, at 1s. 3d. per lb., for the use of their Asylum at Bromley, London, E., and of their Branch Asylum, Blackwall, E.

Printed forms of tender, which alone can be received, and which contain the terms and conditions of the contract, may be obtained on application to me, at the Asylum daily, between the hours of 10 and 4 o'clock (Saturdays, 10 to 1 o'clock), but will not be forwarded by post unless a stamped and addressed foolscap envelope is enclosed for the purpose.

All tenders, accompanied by their samples, must be delivered to me not later than 10 a.m. on Wednesday, 8th March, 1905.

The Firms whose tenders are accepted will be informed thereof by letter.

By order.
WALTER R. FOSKETT,
Clerk to the Managers.

Clerk's Offices,
Bromley, Middlesex, E.
February, 1905.

SURVEYOR (Retired, Government of India), seeks Employment as Draughtsman. Experienced in levelling and land surveying. Moderate salary. G. C., 19, Hyde Vale, Greenwich, S.E.

POOR LAW OUTLOOK.

WEDGE BETWEEN RICH AND POOR.

IT was agreed at a conference of representatives of metropolitan boards of guardians and borough councils, held at Poplar this week, to ask the Government to create a Metropolitan Poor Law Board, with a uniform system and rate over the entire area. Delegates were present from 12 unions and 11 councils, and a proposal for a uniform scheme was carried by 10 votes to 5. This conference may be regarded as the resultant of two under-currents of thought, to both of which we have drawn attention in times past. First, there is the serious social fact that our poor are getting poorer and our rich richer, and, second, the feeling, emphasised by the appointment of Mr. Long's Central Committee, that our methods of Poor Law administration are too piece-meal. Under our present system the poorest districts are mulcted in the heaviest rates, and, as there is no co-ordination in the work of the relieving staffs, some get relief who do not deserve it, and others deserve relief but do not get it. Poplar is a union that is much embarrassed. This burden it may or may not in part have created, but we trust that the conference will result in good.

One Poor Law Board.

❦ ❦ ❦

THE question of unifying the three Manchester unions has been under consideration for some time, as our readers know. At the last meeting of the Prestwich Union a statement was submitted by the clerk which shows that the rates in the Manchester township are 7s. 3d. in the £, in South Manchester 8s. 2d. in the £, and in North Manchester 7s. 2d. in the £. The rateable value of Manchester is £1,872,406, South Manchester £1,082,105, and North Manchester £690,013. The percentage of property subject to composition in these districts is respectively 9 1-10, 22 8 10, and 28 2 10. The number of paupers in each district is: — Manchester, 5,184; Chorlton, 7,130; Prestwich, 2,675. After consideration the Board adopted a resolution unanimously expressing the opinion "that it is highly inexpedient to consolidate the township of Manchester and the Unions of Chorlton and Prestwich into one Poor Law union."

Unification at Manchester.

❦ ❦ ❦

THE Fulham Road Workhouse Visiting Committee of the St. George's Board of Guardians a few days ago reported having considered the question of continuing afternoon tea for men and women over 60 years of age and able-bodied women. The Local Government Board has refused to sanction the expenditure on behalf of the men, although the guardians adopted a recommendation of the committee:—"That as a trial for twelve months, all men over the age of 60 years be allowed half a pint of tea with the women at 3.30 p.m. The committee recommended that its action be approved in authorising the master to allow afternoon tea at three o'clock to the inmates of the female infirm ward, and the aged women on infirm diet only." The total cost, it appears, would work out at about 10s. a day, or £175 a year. No doubt the cry of "too comfortable workhouses" will be raised at this proposal, but humanity dictates that these old folks should have their short paths to the grave made as comfortable as it is possible to make them.

Are Workhouses Too Comfortable?

❦ ❦ ❦

THE chairman of the Gateshead Board of Guardians (Mr. Robert Affleck), whose name as a Poor Law reformer has more than local interest, was on Wednesday evening given a banquet in his honour and presented with a portrait of himself, life-size. The picture, it is understood, will be hung in the Guardians' meeting room, and Mr. Affleck will at the same time receive a replica for his own home. The contributories to this testimony of affection and respect have been many, but they are principally the members of the Board of Guardians. It is felt to be a fitting thing thus to perpetuate for the time to come the memory and the likenesses of gentlemen who have done good service for the community, and there is none who merits the distinction more than Mr. Affleck. The name of sire and son has been a household word in Gateshead for many years, associated always with municipal progress and with the betterment of the community. Mr. Robert Affleck has been prominent in many good works. For years he has been a member of the Borough Council, and his connection with the Guardians has been of much advantage to his fellows.

Poor Law Reformer Honoured.

❦ ❦ ❦

AN important letter has been received from the Local Government Board by the Kensington Guardians with reference to the issue of an order to the guardians authorising them to relieve out of the workhouse the wife and family of any able-bodied male person who is relieved in the workhouse. In other words, the able-bodied male person, i.e., the labourer, who applies to the guardians for relief may obtain that relief by entering the workhouse, while his wife and family are put on out-relief. He must not be absent from the workhouse more than once in any week, nor for a period exceeding twelve hours, nor without the consent of the guardians. The Order is not altogether new, for a similar one was issued by the Whitechapel Guardians in 1897. We consider, however, that an order of this kind may very easily lead to that lax administration which is a weak point of policy in so many boards of guardians. As far as we are aware, the Whitechapel Board has only put this power into operation in exceptional cases; and though it is well, perhaps, that the Poor Law guardians should have this power, they would do well to emulate the example of the Whitechapel Board in this respect also, and use it only in exceptional cases.

Mitigating the Workhouse Test.

By Royal Warrant to His Majesty the KING.

BOVRIL

Saves Money to the Treasurer;
Time and Trouble to the Staff.

Include BOVRIL in your form of tender.
Over 1,500 British Hospitals, Infirmaries, &c., use BOVRIL daily.

BOVRIL Limited, Food Specialists, 152/166, Old Street, London, E.C.

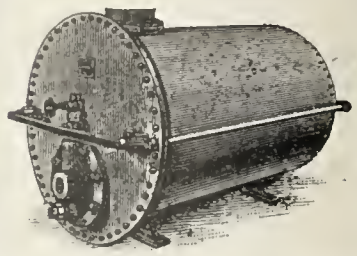
HEATING OF BUILDINGS & HOT WATER SUPPLY

FROM LIVE OR EXHAUST STEAM.

The Latest and Best Appliance is

ROW'S PATENT

CALORIFIER



Storage Calorifier for Baths.

Combined with AUTOMATIC STEAM CONTROL (Royles' Patent)

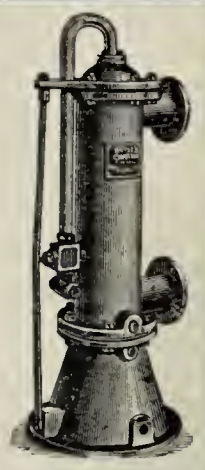
Adopted by the Metropolitan Asylums Board, London County Council, Manchester, Liverpool, Glasgow, Edinburgh Corporations, and others, for Bath Supply.

COPIOUS SUPPLY, UNIFORM TEMPERATURE.

ROYLES LIMITED, IRLAM, near Manchester.

ALSO MANUFACTURERS OF

Feed Water Heaters, Condensers, Evaporators, Steam and Gas Kettles, Syphonia Steam Traps, Reducing Valves, Oil Separators, Exhaust Heads, Boiler Mountings, &c., &c. Price and full particulars on application.



Vertical Calorifier for Hot Water Circulation.

NO MORE FIRES from electric wires. IMPORTANT to MUNICIPAL AUTHORITIES.

IMPROVED ELECTRIC WIRING

The only SAFE SYSTEM. ABSOLUTELY PREVENTS all DANGERS arising from the Fusing of Wires.

FIRES from this SYSTEM have NEVER OCCURRED.

In Use at Car Sheds of British Tramways, Portsmouth Tramways, London United Tramways, Dublin Tramways, and Municipal Buildings at Glasgow, Newport, Cardiff, Brighton, &c.

Manufacturers: CONDUIT & INSULATION COMPANY, Limited,

Telegrams: "Koming, London." RIVERSIDE ROAD, SUMMERS TOWN, S.W. Telephone: 11, Wimbledon.

DIALITE

THE

STANDARD

CABLE

FOR ALL

PURPOSES.

THE ST. HELENS CABLE CO., Ltd.,

WARRINGTON.

RATNER

Twelve Corner Bent Solid Steel

SAFES,

STRONG ROOM DOORS,

STEEL STRONG ROOMS,

SAFE DEPOSITS,

As supplied to the following, among other Public Bodies:—

ADMIRALTY, 500 Safes.
BOARD OF TRADE.
H.M. BOARD OF WORKS.
H.M. POST OFFICES.
WAR OFFICE, 300 Safes.
DUBLIN CASTLE.
INDIA OFFICE.
CROWN AGENT FOR THE COLONIES.

ROTHERHITHE TOWN HALL.
TOWN HALL, BELFAST.
CORK HARBOUR COMMISSIONER.
CORK COURT HOUSE, CORK.
LONDON COUNTY COUNCIL.
GUARDIANS OF THE POPLAR UNION. Three large Registrar Safes.
GUARDIANS OF THE WIGAN UNION.
GUARDIANS OF BISHOP AUCKLAND UNION.
GUARDIANS OF PONTEFRACT UNION.
GUARDIANS OF THE WESTMINSTER UNION.
FARNBOROUGH TOWN HALL.
BEXHILL URBAN DISTRICT COUNCIL.
HAMPSTEAD BOROUGH COUNCIL.
RADSTOCK U.D. COUNCIL.
BLACKPOOL TOWN HALL.
GREAT YELDHAM PARISH COUNCIL.
MARKET HARBOROUGH U.D.C.
DEPTFORD BOROUGH COUNCIL.
PADDINGTON VESTRY.
ROTHWELL U.D.C.
PENGE DISTRICT COUNCIL.
WYNDIGATE DISTRICT COUNCIL.
BROMLEY URBAN DISTRICT COUNCIL.

The RATNER SAFE CO., Ltd., have just secured an order for a Drill-proof Strong Room for the Premier Diamond Mines of Johannesburg (a company which, with a capital of £85,000, made last year a profit of £670,000, and expects this year to make £2,000,000). It will be the strongest room ever constructed, and the order was secured after severe competition not only with the other English makers, but with American makers as well.

Catalogues and all particulars free on application to

51, MOORGATE STREET, E.C.

ELECTRICITY SUPPLY.

Large Profits need not be Anticipated from Residential Districts Lying Beyond the Boundaries of Greater London. The Outlook at Epsom, and the Necessity for a Carefully-Worked Wiring Scheme. Various Methods of Reaching and Trimming Arc Lamps. The Cost of Public Lighting.

THE residential districts lying beyond the boundaries of Greater London do not present such a field for electrical enterprise as would justify us in anticipating large profits or low costs. If we take Epsom, for example, it is hardly surprising to find a deficiency in the annual accounts, although the amount which had to be provided by the rates in the last financial year was greater than seems justified. The reason appears to be rather high costs, together with heavy capital charges. The accounts show that—

The revenue derived from sales of current, &c., amounted to	£2,378
And the working expenditure to	1,898
Leaving a gross profit of..	£480
To this sum was added interest received	56
Making a total of...	£536
Out of this sum the following requirements should have been met :—	
Interest on mortgage debt	£1,019
Instalments of capital repaid	1,014
Total capital charges	£2,033
Less gross profits as above	536
Deficiency on year's working	£1,497

The rates charged were 6½d. and 3d., but only £11 worth of energy was sold at the lower rate. Slot or prepayment meters were in use, but through this source the sales only realised £3. The receipts were made up thus:—

	Units.	Yielding.	Per unit.
Private consumers took ...	42,962	£1,112 =	6·212d.
Public lamps consumed ...	66,588	1,164 =	4·195d.
Interim total	109,550	£2,276 =	4·986d.
Meter rentals	—	34 =	·075d.
Sundry receipts and interest received	—	124 =	·271d.
Total revenue		£2,434 =	5·332d.

13,682 units were used on the works and 19,832 were utilised on distribution, making a total generated of 143,064 units only, with a maximum load of 93 kilowatts. The public lighting comprised 12 arc and 30 Nernst lamps, with 262 incandescents. The output for street lighting is considerably in excess of that for private consumption, and it is, therefore, surprising that the works costs should be nearly 3d. per unit. Undertakings of this size have to exercise a rigid economy if the revenue is to cover the expenditure, and the risk of over-capitalisation is not always recognised at the time such a system is laid down. The usual remedy of reducing the charges so as to create a larger demand cannot be applied with much success, as the better-class residences take electricity at the higher figures, and the working population are unable to pay for wiring. The most hopeful outlook seems to be a carefully-worked wiring scheme. The expenditure was covered by the following items:—

	Amount.	Per unit.	
Works cost	£1,331 =	2·916d.	
Rates, taxes, and management	410 =	·902d.	
Total cost	£1,741 =	3·814d.	
Public lamp maintenance...	157 =	·345d.	
Gross cost	£1,898 =	4·159d.	
Interest on mortgage debt	1,019 =	2·232d. }	4·453d.
Instalments repaid	1,014 =	2·221d. }	
Total actual cost of units sold	£3,931 =	8·612d.	
Less deficiency for year...	1,497 =	3·280d.	
Revenue in all	£2,434 =	5·332d.	

The capital invested was:—

Lands	£266
Buildings	5,908
Machinery	7,943
Accumulators	105
Mains	8,695
Motors, &c.	14
Meters	504
Electrical instruments	387
Public lamps	844
Various	3,554
Total	£28,220

Trimming Arc Lamps.

THE principal difficulty met with in the lighting of streets by arc lamps is the maintenance of the lamp and recarboning or trimming. Various solntions have been proposed, but it cannot be said that anyone has yet proved an unqualified success. The arc is usually some twenty to twenty-five feet above the street level. Either a man has to climb the post or reach the lamp by means of a ladder, or the lamp must be lowered to the ground. Much depends on the form of the bracket, top, or hanger. For the sake of appearance this portion is often made swan-neck or with an outward curve, so that the lamp hangs clear some four or five feet from the standard. Tower ladders on wheels, with two or three men, are then perambulated through the district for trimming. They are expensive and do not last very long, while in windy weather, as they offer a comparatively large surface, they are apt to be dangerous. Shorter ladders, capable of being carried by one man, either shouldered or run round on a light truck, are more generally used, and if the lamp is not too far out of reach the standard is itself turned into a ladder by being fitted with step-irons, resting in holes cut or cast in its sides.

Lowering Gear and Economy.

MORE recently varions forms of hoisting or lowering-gear have been devised, and some such arrangement is provided by almost every maker of arc lamps. In the lower portion or pedestal of the standard a winch is fixed, and from this a steel wire rope is carried up the standard and out along the arm or bracket taking the weight of the lamp. To the top of the lamp is fixed a plate with contact pieces which connect with others on the bracket when the lamp is raised and in its normal position. For safety these devices provide clips or catches which take the weight when the lamp has been raised and let go, a further raising and release allowing the catches to fall free, and the lamp to be lowered to the ground level. There is no doubt that greater attention is given to the mechanism, and that globes are kept cleaner if the attendant can work on *terra firma* than if he has to carry out his duties perched on the top of a ladder, or slung by a waist-belt from the giddy perch on the cross-irons at the top of a standard. In a recent paper, however, the engineer of a Scottish burgh offers the opinion that there is no economy in using lowering gear except in crowded cities, as the capital cost of lowering gear will be greater than the cost of ladders, and its maintenance must be exceedingly costly. While care must be exercised in selecting the type of gear affording the best contact and least liable in its mechanical details to get out of order, this criticism seems to be too severe, and to overlook the importance of accessibility to the parts of the lamp which require adjustment and renewal. By allowing the lamp to be dropped to street level for all maintenance purposes, the most artistic and suitable form of top and standard can be adopted, and the wages charges which follow the use of tower ladders are done away with. It is by attention to such details as these that street lighting will be extended. In the same paper it is argued that public lighting supply should be given at about 1d. per unit, whereby all-night arc lamps could be taken at an annual cost of about £13. Although this estimate errs, perhaps, in being over sanguine, there can be no question that many of the rates now in force are excessive.

A YEAR AT BARNSTAPLE.

A GOOD NETT SURPLUS.

THE Mayor (Mr. H. Barrett) this week presented to Barnstaple Town Council a statement dealing with the revenue account of the electric light undertaking for the twelve months ending January 28th last.

His Worship stated that the total expenditure on January 29th, 1905, amounted to £1,958. The income, including £128 15s. 3d. stores in hand, would amount to £3,540 8s. 7d. This showed a surplus of £1,582 0s. 2d., from which must be deducted £1,290 4s. 10d., interest on mortgage debt and repayment of principal, leaving a nett surplus of £291 15s. 4d.

On January 1, 1904, there were 159 private consumers; on January 1, 1905, 219, an increase of 60. In January, 1904, 42 public lamps were supplied with current, and in January, 1905, 137. The nnmber of units consumed privately during the second year showed an increase of 19,740, and for public lighting an increase of 48,450.

The cost for public lighting was rather large, but it compared favourably with other towns. He had repeatedly heard it remarked that Barnstaple was one of the best-lighted towns in the country, and he did not believe that the ratepayers generally objected to the increased cost. He thought the Council would agree that the result of the second year's working was most satisfactory, and there were very few towns, if any, similar to Barnstaple, which had been able to show a surplus, after payment of capital charges, in so short a period.

Comparing the revenue accounts of the years 1903 and 1904, his worship stated that notwithstanding that the price of current was reduced frem 6d. to 5d. per unit there was an increase of revenue for 1904 (twelve months) over 1903 (eleven months) of £1,383 3s. 6d. The nett revenue accounts ended December 31, 1904, showed a debit of £995 16s. 9d., notwithstanding that £2,578 13s. 4d. had been paid for interest and instalments of capital.

But against such balance were book debts for current supplied to private consumers amounting to £526 7s. 2d., thus reducing it to £469 9s. 7d. The actual result, therefore, to December 31, 1904, was a debit balance of £469 9s. 7d. only. But it must not be forgotten that £2,578 13s. 4d. had been paid as interest and instalment of capital, which payment, had the undertaking not been successful, would have been a serious charge upon the rates, The amount received from private consumers was £1,459 5s. 9d., and for public lighting £1,903 14s. 8d.

"WATER SUPPLIES IN TENEMENT HOUSES."

REFERRING to the report in our issue of Feb. 3 under the above heading, and to the action of the London County Council in regard to the question, Dr. Davies, the medical officer of health for Woolwich, sends us the following supplementary facts, "in order to avoid any possible misconception":—"On September 14th of last year I reported to my Public Health Committee that the house in question had not a proper and sufficient water supply, and that the owner should be required to provide a small sink and tap on the passage of each upper floor. On October 26th an order was made that proceedings should be taken. Before the case came on, however, the report of the County Council was received giving the first information of the steps they were taking in the matter. Seeing that the County Council were interested in the subject, it was considered advisable to ask Dr. Hamer to give evidence in support of the prosecution, and this was done.

"It will thus appear that it was only by a mere coincidence that the police court proceedings instituted by the Woolwich Council were taken just when the Council was seeking for a test case to be taken."

EXETER City Council sat two hours on Tuesday evening in committee investigating charges made against the management of the electric light undertaking. Eventually a committee was appointed.

CORRESPONDENCE.

ENGINEER OR TRAMWAY MANAGER.

To the Editor.

SIR,—In common with your readers generally, I have to express my appreciation of the informative and instrnctive articles which appear week by week in the *Municipal Journal*, and the pleasnre it affords me to learn that an expansion of your excellent journal has now become necessary "to extend its present features, and introduce as many new ones as possible."

We admire the conrageous and unswerving stand taken by you in defence of municipal trading, whether of tramways, electric lighting, or otherwise, as opposed to the exploitation of the property of the ratepayers for the benefit of private companies and their shareholders.

There is, however, another phase of the subject which I have not yet seen touched upon in your columns, and that is the appointment in many towns of a gentleman to the dnal position of engineer and tramways manager.

The profession of an engineer, whether civil, mechanic, or electric, is a great and noble one, and the world at large is under a lasting debt of gratitude to the many eminent men for their great works, inventions, and researches during the past century.

This holds trne with regard to electric tramways, but it is much to be regretted that these gentlemen should desire to add to the work of their own profession that of tramways manager.

A moment's thought will show that the positions and duties are separate and distinct. Tramway management no more follows on the duties of an electric or civil engineer than do those dnties pertain to that of a tramway manager.

In many cases the appointment of one gentleman to the dual position would seem to arise from a view to economy on the part of the tramway committee concerned.

That this is "a penny wise and pound fcolish" policy is being brought forcibly to our notice in the many cases of tramways managed by engineers proving such disastrous financial failures.

This is notably the case in towns in Lancashire, Yorkshire, and Northumberland, and the reason is not far to seek.

An engineer, usnally a young gentleman of excellent credentials in regard to his own profession, but utterly and entirely innocent of any administrative ability, commercial knowledge, or organisation, is appointed manager, and he at once casts about for a man under the title of "traffic superintendent," "traffic inspector," or "chief inspector," *who must have had experience*, to arrange all the details of the traffic working for him.

This position no manager of real ability or experience, or possessing a spark of self-respect, would consider for a moment. The result is that some third-rate man applies for and obtains the position.

How far he is permitted a free hand in the actual management is doubtfnl, but should he possess any ability at all, he would, no doubt, find that lines had been laid in nnremunerative districts; cars run in excess of the traffic requirements at one time of the day, and not sufficient at another; fares not properly adjusted, and the hundred and one other essential details which go to the successful working of a tramway, crudely conceived, if not neglected altogether, under the idea common to "the man in the street" that, having laid down some tram lines and put cars on them, with a man in front and another behind, there is nothing more to be done; but, as in all other spheres of bnsiness, it is to the commercial side that one turns for the result of a tramway undertaking.

Tramway managers have to gain their knowledge and training in the hard school of experience, and a successful manager is no more the corollary of an engineer than is the converse.

There need be no conflict in the two positions. The duties are so distinct that there should, on the other hand, be complete harmony in the working, and the figures given in the *Municipal Journal* amply prove which is the more successfnl mode of management, as it will be found that it is in the few larger towns, where the general managers are gentlemen of commanding ability and commercial knowledge, that the greatest success is attained.

The question is, therefore, one which vitally affects the interests of the ratepayers, and is an object-lesson to the conncillors in every town and district that true economy is not served by the merging of separate and distinct offices, but rather in treating each on a separate basis in a generous and appreciative manner, in order thereby to obtain the best available talent and ability for both positions.

Electric traction has been in vogne but a very few years, and yet we find the tramway tracks already giving way in varions towns, whilst the overhead eqnipment and mechanical equipment of the cars is far from perfect. These are matters to which engineers could usefully direct their attention, to the advantage of duties which are altogether outside their domain.—Yours, &c.,

EXPERTO CREDE.

February, 1905.

HUDDERSFIELD ELECTRICITY PROFITS.

THE accounts of the Hnddersfield Corporation electricity undertaking show a surplus of £3,875, and the Town Council was on Wednesday asked to pass a resolution that the surplus, together with £2,110 11s. 6d., from the depreciation and contingency acconnt, be transferred to the borough fund in aid of the rates for 1905-6, by way of reducing the amount received from the borough rates towards deficiencies in the revenue account for the three years 1893-4-5, amonnting to £5,985 16s. 6d.

J.G. WHITE & COMPANY, LIMITED.
ELECTRICAL, MECHANICAL & CIVIL ENGINEERS
GENERAL CONTRACTORS
22A, COLLEGE HILL, CANNON ST LONDON, E.C.
TELEGRAMS "WHITTERICK, LONDON." TELEPHONE 6044 & 6045 BANK

WM. GRIFFITHS & Co., Ltd.,
35 to 39, HAMILTON HOUSE, BISHOPSGATE STREET WITHOUT, LONDON, E.C.,
CONTRACTORS FOR CONSTRUCTION OF TRAMWAYS
AND MUNICIPAL WORK OF ALL DESCRIPTIONS.
QUARRY OWNERS AND STONE MERCHANTS.
LARGE STOCKS ON HAND OF
PITCHINGS, KERB, MACADAM, YORK STONE, JARRAH TIMBER, &C.
TELEGRAPHIC ADDRESS—"GRIFFITHS, STONE, LONDON." TELEPHONES—Nos. 2868 and 2869, LONDON WALL.

TRAMWAY TOPICS.

Railways and Motor 'Buses. Important Municipal Action. Parcels by Tramways in Manchester. Satisfactory Condition at Cardiff and Keighley. Hours of Labour and Wages of Employees in some of the Large Towns of England: A Comparison with those under the London County Council.

ON Mouday an important conference was held in London of representatives of municipalities owning tramways. Mr. Boyle (chairman of the Mauchester Corporation Tramways Committee) presided. The conference considered the clanses which several railway compauies have introduced into their Bills for the present sessiou, euabling them to provide motor-omnibuses, which they would be entitled to use without auy restrictions. A resolution was adopted coudemning this proposal, but expressing the opinion that there would be no objection to it if the powers sought by the railway companies were limited to the provision of motor-omnibuses carrying traffic to aud from the companies' railway stations, subject to the proviso that such vehicles shonld be licensed by the local anthority in whose district they are to be nsed.

❦ ❦ ❦

Legislative Amendments.

THE conference also had before it a series of proposals made by the Tramways and Light Railways Association for amending the Tramways aud Light Railway Acts. Sngges-tions were made for the amendment of the constitution and powers of the light railway anthorities. One of them was to the effect that the Light Railway Commission should have power to grant compulsory running powers over tramways and light railways. The secretary of the conference was directed to send a communication ou the subject to the Municipal Corporatious Association. The last subject before the conference was the Bill promoted by the Cyclist Touriug Club and the Automobile Club, providing that every vehicle on a public highway shall carry a white light iu front and a red lamp behind, which can be seen at a distance of 50 yards. The conference decided to give its full support to the Bill.

❦ ❦ ❦

Employees' Wages and Conditions of Labour in London.

THE Amalgamated Society of Tramway and Vehicle Workers recently petitioued the London Couuty Council for alterations in their present hours of labour and rates of pay. The principal requests of the men were as follows:—(1) Rate of pay for drivers and conductors to be 5s. per day on entering service, and for the first six months; 5s. 6d. for the second six months; 6s. 3d. per day after twelve months' service; (2) all services to be takeu by seniority; (3) spare men to be paid 2s. per day in the event of their showing up for, and not obtaining, work; (4) hours of labour to be niue per day, or 54 per week, signing ou aud off inclusive, each day's work to be completed iu twelve cousecutive hours, and the meu to have at least eight hours off from the time of signing off until the time of siguing on for the uext day's work; (5) drivers and condnctors after two years' service to receive oue week's holiday per year with pay; (6) all drivers and conductors called upou to work on their stand-off day to be paid at the rate of time and a half; (7) formation of a board of conciliation consistiug of representatives of the meu and of the Highways Committee.

❦ ❦ ❦

The Present Position.

THE positiou obtaining in the London County Council employ at the time the petitiou was received may be summarised as follows:—(1) Rate of pay for drivers and condnctors, 4s. 9d. per day on entering service; 5s. 3d. after six months, or ou obtaining a service car; 5s. 9d. after six months on a service car; and 6s. 3d. after 12 mouths on a service car. (2) All services are taken by seniority as far as possible. (4) Average nine and two-fifth hours a day, or 56½ per week, siguing on aud off exclusive; relief varying from forty miuutes to seveu hours fifty minutes. (5) One day in every seven. (6) At present paid at ordinary rate.

❦ ❦ ❦

London Compared with the Provinces.

THE figures below show how the Londou County Couucil service compares with that of other corporations:—

Corporation.	Rate of pay—Motormen.		Rate of pay—Conductors.		Hours of labour.	
	Per hour.	Per day.	Per hour.	Per day.	Per week.	No. of days per week
Bradford	5½d. to 7d.	4s. 7d. to 5s. 10d.	4½d. to 6d.	3s. 9d. to 5s.	60	6
Glasgow	5·33d. to 6·66d.	4s. to 5s.	5·33d. to 6·66d.	4s. to 5s.	54	6
London County Council.	5·70d. to 7·50d.	4s. 9d. to 6s. 3d.	5·70d. to 7·50d.	4s. 9d. to 6s. 3d.	56	6
Liverpool	6d. to 6½d.	5s. to 5s. 5d.	5d. to 6d.	4s. 2d. to 5s.	60	6
Leeds	6d. to 6½d.	5s. to 5s. 5d.	5d. to 6d.	4s. 2d. to 5s.	60	6
Manchester	5¾d. to 7d.	4s. 4d. to 5s. 3d.	5½d. to 6¾d.	4s. 1½d. to 5s. 0¾d.	54	6
Newcastle	5·77d. to 6·66d.	4s. 4d. to 5s.	5·77d. to 6·66d.	4s. 4d. to 5s.	54	6
Nottingham	5½d. to 6½d.	4s. 7d. to 5s. 5d.	5d. to 6d.	4s. 2d. to 5s.	60	6
Portsmouth	5d. to 6d.	4s. 2d. to 5s.	4·40d. to 5d.	3s. 8d. to 4s. 2d.	60	6
Sheffield	6d. to 6¾d.	5s. to 5s. 7½d.	4½d. to 5d.	3s. 9d. to 4s. 8d.	67	6½

Committee's Conclusions.

THE Highways Committee points out that "the couditions of labour in force on the London Tramways Company's undertaking when it was transferred to the Council were mnch more favourable than those in force on the other undertakings which have beeu since acquired, and the expenditure involved in giving in these cases the Council's improved conditions has beeu proportionately heavy. It is estimated that the value of the concessions already made to the men in respect of increase in pay or alteration of hours and other matters amounts now to about £37,000 a year. As a result of the very considerable improvements already made in wages aud the conditions of labour since the Council commeuced the working of the tramways, the conditions at present obtaining on the Council's tramways are certainly on a level with the best in force on any other tramways undertaking in the country. For the reasous above set forth we do uot feel justified in recommeuding any alterations which wonld circumscribe the Council's freedom in the future in improving the tramway service of London, consistently with the placing of that service as a whole on a sound financial basis. In all the circumstances, therefore, we are not able to recommend that any further alteratiou should be made at the present time beyond those above indicated."

❦ ❦ ❦

Recommendations.

THE recommendations of the committee were as follows:—(1) That when employees ou the spare list are summoned to attend at auy of the tramways depots in case their services should be required, they be paid at the rate of 6d. au hour for actual work performed, with a minimnm of 1s. whether they obtain work or not. (2) That when tramways employees are reqnired to work during their "staud off" time, they be paid at the rate of time and a quarter. Adopted.

❦ ❦ ❦

Cost of a Poll on Sunday Running.

IT having been desired in Bournemouth to obtaiu a decision of the burgesses ou the question of the running of Sunday trams by meaus of a poll of the towu, the towu clerk was asked as to the cost, aud said he did not believe it could be uudertakeu by the Corporatiou. Having made inquiries of other towns, he informed the Tramway Committee he was still of opinion, having regard to the answers received, that the Council was not in a positiou to take a poll of the town uuless the cost were paid otherwise than from the rates. Being asked in the Council what method the other towns adopted of meeting the expense, the Town Clerk said that in most cases it was paid out of the rates, but in each case a hint was added that they had no Local Government Board auditor.

❦ ❦ ❦

A Good Work Expedited.

VERY satisfactory is the annonncement just made that the parcels department of the Manchester Corporation tramways, to which we referred in our issue of last week, is now completely organised, and that its useful work will shortly come iuto operatiou. It is understood that the central receiving office in Parker Street will take both parcels "over the counter" and give a service of collecting vans, which will cover the city proper. There will be 26 depots at various poiuts of the tramway system, and messengers will be stationed there, who will expeditiously deliver parcels, not exceeding 28lb. in weight, to any address within a reasonable distance. The outside districts, which will be covered by vans making frequent collectious, take in places so far distant as Altrincham, Ashton-under-Lyne, Broadheath, Castleton, Bury, Cheadle Heath, Didsbury, Eccles, Flixton, Stockport, Middleton, Oldham, Rochdale, and Heywood, aud, of course, all the districts that lie between these towns and the city. Electric freight cars, designed and built by the department for the purpose, will be utilised for the dispatch of heavy and bulky parcels.

❦ ❦ ❦

Aston Reconstruction Scheme.

THE Aston Town Council has adopted a report of its Public Works Committee embracing a scheme prepared by its consulting engineer (Mr. Robert Green) for the reconstruction of the remaining tramways within the borough, includiug street improvements. It is not intended to curtail the width of any of the footpaths of the routes affected. The total cost of the work, including the overhead electric equipment, is estimated to cost £63,270. The Council approved the plans and sections of the work prepared by the engineer, and authorised tenders to be obtained.

❦ ❦ ❦

A Transfer.

WE understand that the Llanelly tramways are to be trausferred from the local company to the Llanelly aud District Electric Lighting and Tractiou Company, subject, of course, to the approval of the Board of Trade. At a recent meeting of the local Roads Committee, it was resolved to take the opportunity of presenting a complaint as to the condition of the tramways to the Board of Trade.

❦ ❦ ❦

Lancashire to the Fore.

WITH Mr. Arthur Stanley, M.P. (chairman of the South Lancs. Tramways Compauy), as president of the Tramways and Light Railways Association, and Mr. Bellamy (the well-known general manager of the Liverpool Corporatiou Tramways) as vice-president, Lancashire is excellently represented on this important association. The South Lancs. Tramways Company was one of the pioneers of inter-urban traffic, and Mr. Stanley's experience in connection with it has given him the opinion that uo mode of traction can compete, iu the matter of cheapness and efficiency combined, with tramways.

Municipal Tramways a Success at Cardiff.

AT the second annual dinner of the Cardiff tramway employees last week, Conncillor Walter Thomas mentioned the fact that not a penny had been drawn from the rates for the up-keep, &c., of the tramways, which had proved a great public service. Mr. Arthur Ellis, borough electrical engineer and manager, who presided at the dinner, told the company that the tramways were emphatically a success, and as regards the proportion of expense to income, they compared favourably with some railway companies.

A Move Forward at Keighley.

IT has been found necessary to extend the tramway of this rising little town from Victoria Park Gate to the end of Aireworth Road, near Stockbridge, and last week the portion added, a single line 750 yards long, with two passing places, was informally opened by the Mayor and Corporation. The line is so constructed as to be capable of forming part of a double-line system in the future, and to allow of further extension. At present only provisional running powers have been obtained pending the Board of Trade inspection.

Bradford and its Manager.

A RESOLUTION by Mr. J. W. Swithenbank, that the tramways manager (Mr. C. J. Spencer) be called upon to resign, "seeing that he is dissatisfied with his present position," came before the Bradford City Council on Tuesday. In reply to questions put at the meeting, it was stated that Mr. Spencer entered into a five years' agreement in July, 1900. That agreement was varied in 1903, because Mr. Spencer was an applicant for a vacancy at Birmingham, an increase in salary of £200 being given then. The answers to Mr. Swithenbank's questions were that Mr. Spencer was appointed on March 21st, 1895, at a salary of £150. The position was not advertised. In April, 1900, Mr. Spencer's salary was increased to £200; in May, 1900, to £300; in June, 1901, to £400; in June, 1902, to £500. In June, 1903, the agreement was varied, and the salary was increased to £700. Mr. Spencer had spent four weeks in America, and had returned an account of £96 16s. For his visits to Belgium and Germany no charges were made. Mr. Spencer had refunded no portion of his salary for the time spent in applying for the Newcastle vacancy, nor had he refunded any sums received as fees as witness on behalf of other bodies.

The Attack on Mr. Spencer.

MR. SWITHENBANK said the case was an isolated one, and he did not wish any other official in the Corporation to think that it applied to him. Taking all things into consideration, he regarded Mr. Spencer's action in applying for the Newcastle position as one of the grossest pieces of base ingratitude, both to the Corporation and to the ratepayers in general, for Mr. Spencer had gained his experience at the latter's expense. The Mayor said Mr. Spencer had not applied for the position because of dissatisfaction or ingratitude, but he was pressed by Newcastle to apply for the position because they wanted a man of his experience and calibre. The motion was put, and lost by 31 votes to 16, there being many abstentions.

MUNICIPAL ELECTRIC TRAMWAY RETURNS.

Undertaking.	Date of Opening.	Length of Route.	Total Length Track.	Year ends.	Last Weekly Return.		Corresponding Week 1904.		Total Receipts for Year	
		Miles	Miles		Receipts.	Passengers.	Receipts.	Passengers.	1905.	1904.
Aberdeen	Dec. '99	2·50	5	May 31	1,052	—	1,094	—	50,971	55,216
Ayr	Sept. '01	6	8	—	174	52,255	164	47,056	11,732	11,198
Birkenhead	Feb, '01	13·52	23·53	March 31	943	196,126	958	199,932	47,319	48,121
Blackburn	Mch. '99	13½	13½	March 25	—	—	—	—	—	—
Blackpool	Oct. '84	3	6	March 31	315	—	291	—	45,299	39,212
Bolton	Nov. '99	25	40	March 31	1,662	364,301	1,616	352,892	81,953	81,589
Bournemouth	July '02	11·8	18·2	March 31	855	159,386	862	161,520	53,445	17,637
Bradford	July '98	53¾	95¼	March 31	3,729	—	3,366	—	169,463	142,382
Brighton	Nov. '01	6·5	11·75	—	753	170,023	709	170,297	—	—
Burnley	Mch. '02	10·60	10·60	March 31	1,034	186,511	889	159,256	—	—
Cardiff	Dec. '01	16	30	March 31	—	—	—	—	—	—
Darwen	Oct. '00	4·5	4·25	Dec. 31	—	—	—	—	—	—
Dover	Sept. '97	3·5	4·5	March 31	160	41,311	169	43,594	10,041	10,179
Dundee	July '00	12·56	23·1	March 31	—	—	—	—	—	—
East Ham	June '01	6·6	10·75	March 31	649	243,721	598	228,073	31,997	30,260
Glasgow	Oct. '98; Extens., April '01	72½	143	May 31	13,956	3,666,466	12,684	3,370,395	526,059	500,583
Halifax	—	—			2,411	578,640	2,195	526,800	68,008	61,151
Huddersfield	Feb. '01	—	32	March 31	—	—	—	—	—	—
Hull	July '99	12·25	25	March 31	2,026	486,384	2,039	481,959	98,606	87,700
Ilford	Mar., '03	6·5	10·5	—	327	88,059	305	—	19,411	18,458
Ilkeston	May, '03	3·5	4	—	108	28,625	126	32,710	—	—
Leeds	Aug. '97	37	71	March 25	5,395	—	4,902	—	262,859	248,086
Liverpool	Nov. '98, June '99	66	114	Dec. 31	9,817	2,135,891	9,643	2,085,560	48,853	47,646
L.C.C.*	1897, Jan. '99	—	47¼	March 31	12,048	—	8,843	—	550,060	427,754
Manchester	June '01	72	131·50	March 31	11,604	2,376,750	10,556	2,165,583	548,256	523,885
Nelson	Mch. '02	2·75	3·5	—	104	32,131	94	27,842	5,351	4,000
Newcastle	Dec. '01	17	36	—	3,555	802,387	3,431	776,770	—	—
Oldham	Dec. '00	18	28	—	1,373	273,944	1,027	226,655	57,643	53,588
Portsmouth	Sept. '01	15	28	—	1,414	300,998	1,373	293,703	85,807	79,360
Reading	July '03	7½	13⅛	—	494	116,184	490	114,433	27,583	—
Rotherham	Jan. '03	7½	—	March 25	386	87,899	391	86,758	17,324	14,777
Salford	Oct. '01	32½	59½	March 31	3,869	735,118	3,638	709,360	180,360	171,608
Sheffield	Sept. '99	32½	59½	March 25	4,461	1,182,923	4,160	1,100,554	214,024	208,332
Southampton	Sept. '98	9⅜	16⅝	March 31	802	151,327	887	172,923	43,467	45,960
Southend-on-Sea	July '01	6·85	—	March 31	—	—	—	—	—	—
Sunderland	July '00	12·27	23	—	1,059	—	1,078	—	56,904	55,450
Wallasey	Mch. '02	9	10·5	March 31	650	124,625	571	139,416	33,557	31,297
Walsall	Jan. '04	12¼	13½	Dec. 31	459	81,961	455	83,303	2,595	2,792
West Ham	Feb. '04	9·78	12·98	—	1,102	322,234	—	—	43,367	—
Wolverhampton	April '02	11·258	16·848	March 31	699	151,968	391	76,890	—	—

* Also includes the horse lines.

BIRKBECK BANK

ESTABLISHED 1851.

2½ per cent. INTEREST

allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST

allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.

STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C.

TEMPERANCE PERMANENT

BUILDING SOCIETY,

4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS

For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years.
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager.

EATON & KNAPP,

BOILER SETTERS & FURNACE BUILDERS,

Repairs in Boiler Brickwork & Dust Destructors of all kinds.

ESTIMATES FREE.

23, CLACTON ROAD, WALTHAMSTOW.

DICK, KERR & Co., LIMITED,

ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Contractors for Municipal Lighting and Tramway Schemes.

Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

CARRON

STABLE FITTINGS.

Unexcelled for Efficiency and General Excellence.

Used by all the leading Corporations, Railway & Tramway Companies, &c.,

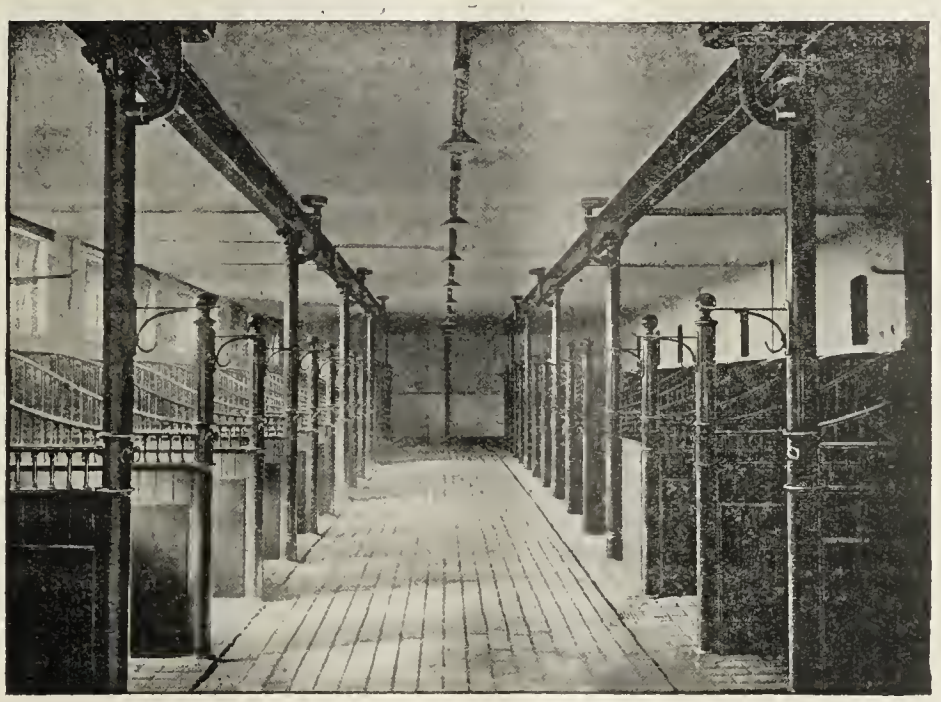
Amongst which are the following:—

London County Council, St. Luke's Vestry, Kensington Vestry, Fulham Vestry, Glasgow Gas Corporation, Croydon Corporation, Great Northern and Great Eastern Railway Companies, London Road Car Co., Tilling's, Ltd., &c., &c.

Five Stalls and Loose Box, full size, on view at our London (City) Showrooms, 15, Upper Thames Street, E.C.

Carron Company also manufacture Cow House and Piggery Fittings of every Description.

Estimates and Drawings sent with pleasure.



Interior view of large Stable equipped with Carron Stable Fittings.

ESTO PERPETUA FOUNDED 1759

CARRON COMPANY

INCORPORATED BY ROYAL CHARTER 1773

Works: **CARRON, STIRLINGSHIRE, N.B.**

Manufacturers of Cast Iron Goods of every conceivable description.

AGENCIES & SHOWROOMS:—LONDON (City)—15, Upper Thames Street, E.C.; LONDON (West End)—23, Princes Street, Cavendish Square, W.; LIVERPOOL—30, Red Cross Street; MANCHESTER—24, Brazenose Street; BRISTOL—10, Victoria Street; NEWCASTLE-ON-TYNE—13, Prudhoe Street; GLASGOW—125, Buchanan Street; BIRMINGHAM—Guildhall Buildings, Stephenson Street; DUBLIN—44, Grafton Street; SOUTHAMPTON—Town Quay (The Old French Prison).

NOW READY. Price 12/6.

THE IMPERIAL DIRECTORY

OF

ELECTRIC LIGHTING & ELECTRIC TRACTION WORKS,

1905.

Edited and Compiled by C. S. VESEY BROWN, M.Inst.C.E., M.I.E.E.

The Directory contains a List of the Works established under Statutory Powers in

GREAT BRITAIN & IRELAND, INDIA & the BRITISH COLONIES,

For the Supply of ELECTRIC LIGHTING, POWER, and TRACTION.

The Statistics given for each Town are divided into Three Parts:—

(a) Names and Addresses of all the Directors, Members of Municipal Committees, and the Principal Officers connected with each Works, together with their Postal and Telegraphic Addresses.

(b) Technical Description of each Works, showing the "System of Supply," detailed list of the Machinery, Storage Cells, Cables, Meters, &c., with which the Works are Equipped, giving the Maker's Name in each case, also the Prices Charged for Light, Power, and Traction.

(c) The Financial Results for the Last Completed Year of Working, showing Capital Expended, Revenue and Costs of Generation, &c., are Given in Detail.

LONDON: HAZELL, WATSON & VINEY, Ld., 52, Long Acre, London, England.

Copies may also be obtained as under:—

BERLIN: F. F. W. STIELER, 149, Kurfursten Strasse.
INDIA: THACKER, SPINK & Co., Calcutta and Simla. THACKER & Co., Ld., Bombay.
AFRICA: J. C. JUTA & Co., Cape Town, Port Elizabeth, Grahamstown, Johannesburg, Stellenbosch, Durban, East London.
AUSTRALASIA: GEO. ROBERTSON & Co., Proprietary, Ld., Melbourne, Sydney, Adelaide, and Brisbane.
CANADA: "Canadian Electrical News," Confederation Life Building, Toronto.

Appointments Vacant.

Latest date for applications in parentheses.

Accountant Clerk. £150. E. R. Woodward, Clerk to Guardians, 61, Bartholomew Close, E.C. (February 25.)

Attendant (Head Male), £80. Matron, £80. W. G. Austin, Guildhall, Westminster, S.W. (February 24.)

Bookkeeper. £110. H. J. Hoare, Borough Treasurer, Devonport. (February 28.) See advt. in this issue.

Borough Accountant. W. Tilly, Town Clerk, Town Hall, Morecambe. (February 28.)

Chemist. The Chairman, Works Sub-committee of Gas Department, Council House, Birmingham. (February 20.)

Clerk (Third Assistant), £80. Chief Inspector, Public Health Department, 2, Paradise Row, Cambridge Road, Bethnal Green, N.E. (February 20.) See advt. in No. 628.

Clerk (Ledger). £78. P. Thomas, Town Clerk, Town Hall, Leigh. (February 22.) See advt. in No. 628.

Clerk (Assistant Prime Cost), £80; Shorthand Clerk, £54 12s. J. A. Johnson, Town Clerk, Town Hall, Walworth Road, S.E. (February 23.) See advt. in this issue.

Draughtsman (Furniture) and Estimating Clerk, £3 a week; Inspector of Furniture, 50s. a week; Foreman of Cabinet Makers, 50s. a week; Working Machine Foreman, 50s. a week; Assistant to Keep Timber, &c., 40s. a week. Clerk of London County Council, Spring Gardens, S.W. (February 20.)

Deputy Town Clerk. £800. (Johannesburg.) E. W. Carling and Co., St. Dunstan's Buildings, St. Dunstan's Hill, E.C. (February 23.) See advt. in this issue.

Engineering Assistant (Second). £100. H. Hankinson, Town Clerk, Guildhall, Northampton. (February 28.) See advt. in this issue.

Engineering Assistant. £500. Clerk of London County Council, Spring Gardens, S.W. (February 20.)

Fireman. 25s. a week. F. D. Askey, Town Clerk, Southwood Lane, Highgate. (February 20.)

Gasworks Foremen. £130. H. Hock, City Gasworks, Saltley, Birmingham. (February 25.)

General Foreman in Highways Department. 25s. per week. W. H. Bolt, District Surveyor, Leigh, Tonbridge, Kent. (March 1.)

Inspector of Nuisances (Assistant). £100. J. E. H. Rogers, 7, Dew Street, Haverfordwest. (February 20.)

Inspector of Weights and Measures. £120. W. W. Greenhalgh, Town Clerk, Wakefield. (February 22.)

Junior Clerk in Borough Accountant's Department. £70. James Wilson, Town Clerk, St. Marylebone Town Hall, W. (February 20.) See advt. in No. 627.

Librarian. £100. R. B. Nicholson, Town Clerk, Town Hall, Lowestoft. (February 25.)

Librarian (Assistant). £75. The Librarian, Public Library, Hounslow. (February 27.) See advt. in this issue.

Male Caretaker of Children. W. S. V. Cullerne, Clerk to Guardians, Commercial Road, Guildford. (February 24.

Male Caretaker of Children. W. S. V. Cullerne, Clerk to Guardians, Commercial Road, Guildford. (February 24.)

Master and Matron. £140 and £70. J. J. Simpson, Clerk to Guardians, St. Peter's Hospital, Bristol. (February 29.)

Master and Matron (Married Couple). £80 and £40. J. H. Knight, Clerk to Guardians, Newcastle-under-Lyme, Staffs. (February 25.)

Master and Matron (Man and Wife). £75 and £55. J. Pym, Clerk to Guardians, Bridge Street, Belper. (February 23.)

Matron (Assistant). £25. P. Lovegrove, Clerk to Guardians, 3, Park Street, Windsor. (February 25.)

Matron (Assistant). £20. T. E. Parry, Union Office, Conway. (March 3.)

Nurse. £30. R. H. Roberts, Union Offices, Ruthin. (March 4.)

Nurses. £12. E. Pitts Fenton, Clerk to Guardians, 283, Tooley Street, S.E. (February 23.)

Relieving Officer, Collector, and Vaccination Officer. £120 and commission, &c. H. C. Canham, 68, Friars Street, Sudbury. (March 2.)

Relieving Officer. £140. R. Clay, Clerk to Guardians, 213, Kingsland Road, N.E. (February 24.) See advt. in this issue.

Surveyor's Assistant. £150. Competitive Examination. Particulars, Director of Works, Admiralty, Northumberland Avenue, W.C. See advt. in this issue.

Surveyor (Assistant). £100. F. J. Seabrook, Union Offices, Edgware. (February 22.)

Surveyor—Road. £130. W. Nicholson, District Clerk, Kirkcudbright. (February 28.)

Surveyor and Sanitary Inspector. £150. W. Richardson, Clerk to Rural District Council, Gainsborough. (March 1.)

Waterworks Engineer. R. E. Fox, Town Clerk, Leeds. (February 28.)

Tenders Wanted.

Latest date for sending in tenders in parentheses.

Annual Contracts for Supplies. R. M. Prescott, Town Clerk, Town Hall, Fulham, S.W. (March 15.) See advt. in this issue.

Caps, Clothing, Linen and Cotton Goods, &c. R. Greenwood, Guardians' Offices, Brook Street, Kennington, S.E. (February 28.)

Cartage of 12,000 Tons of Granite, &c. H. T. Wakelam, Guildhall, Westminster, S.W. (February 28.)

Chemists', Grocers' and Bakers' Goods. W. H. Snow, Town Clerk, Southend-on-Sea. (March 1.) See advt. in this issue.

Contracts for Work, Materials, &c. C. R. Fortune, City Surveyor, Guildhall, Bath. (March 7.)

Contracts—Works and Materials. F. D. Askey, Town Clerk, Southwood Lane, Highgate, N. (February 20.)

Contracts—Goods and Works. H. Hargreaves, Public Offices, Barking. (March 3.)

Contracts for Supplies. C. Sydney Watson, Clerk of District Council, Town Hall, Walthamstow. (February 24.) See advt. in No. 628.

Contracts—Works and Materials. R. H. S. Butterworth, Clerk to District Council, Council Offices, 12, Queen's Road, Wimbledon. (March 4.) See advt. in No. 628.

Contracts. W. F. Dewey, Town Clerk, Town Hall, Upper Street, Islington, N. (February 23.) See advt. in No. 628.

Contracts. H. Mansfield Robinson, Town Clerk, Town Hall, Old Street, E.C. (March 14.) See advt. in this issue.

Contracts for Supplies. A. Creer, City Engineer, Guildhall, York. (March 1.)

Dust Carts, &c. Thos. Hunter, W.S., Town Clerk, City Chambers, Edinburgh. (March 10.)

Electrical — Three-phase High Tension Machinery. F. M. Bowey, Town Clerk, Town Hall, Sunderland. (February 24.) See advt. in No. 628.

Electrical—Condensing Plant, Boilers, &c. R. M. Prescott, Town Clerk, Town Hall, Fulham. (February 22.)

Electrical—Arc Lamp Carbons. H. Campbell, Town Clerk, City Hall, Dublin. (February 23.)

Electrical—Motor Generators and Balancers. W. H. Talbot, Town Clerk, Town Hall, Manchester. (February 21.)

Electrical and Engineers' Stores. W. F. Dewey, Town Clerk, Town Hall, Upper Street, N. (February 23.)

Electricity Department—Materials. W. Marcus Wilkins, Town Clerk, Town Hall, Battersea, S.W. (February 27.)

General Stores. W. H. Snow, Town Clerk, Southend-on-Sea. (March 2.) See advt. in this issue.

Granite and Slag. A. H. Malim, Clerk to Rural District Council, Grantham. (February 23.)

Heating. L. C. Evans, Town Clerk, Town Hall, Salford. (February 27.)

Iron Band-Stands. F. Stevens, Clerk to District Council, Beckenham. (February 20.)

Iron Buildings for Sale. E. Cozens, Public Office, Hampton, Middlesex. (February 27.)

Jersey Gravel. H. W. Cook, Public Offices, Egremont, Cheshire. (February 20.)

Library. F. H. Norman, Municipal Offices, Bromley, Kent. (March 7.)

Loans of £50 and Upwards. Haswell Brown, Borough Accountant, Town Hall, Sunderland. See advt. in this issue.

Materials and Goods. A. Burton, Borough Surveyor, Town Hall, Stoke-upon-Trent. (March 1.)

Municipal Buildings. J. M. Hayton, Town Clerk, South Shields. (March 18.)

Municipal Buildings—Competitive Designs Invited. H. J. Smith, Town Clerk, Town Hall, Kennington Green, S.E. (March 30.)

Printing and Stationery. F. D. Askey, Town Clerk, 99, Southwood Lane, Highgate, N. (February 20.) See advt. in No. 626.

Printing and Stationery. J. Bell, Clerk to District Council, Surbiton. (February 20.)

Printing, Stationery, &c. C. Sydney Watson, Clerk of District Council, Town Hall, Walthamstow. (February 24.) See advt. in this issue.

Pumping Machinery. J. Dewhirst, Avenue Chambers, Chelmsford. (February 24.)

Reservoir Tank, &c. D. J. Purcell, Council Office, Naas, Ireland. (March 1.)

Road Materials, Cartage, &c. F. J. Wood, County Surveyor, County Hall, Lewes. (February 28.)

Road Making. G. E. Brydges, Town Clerk, Town Hall, Ealing, W. (February 28.)

Road Material. J. F. Hawkins, County Surveyor, Bank Chambers, Reading. (February 20.)

Road Works. F. Stevens, Clerk to District Council, Beckenham. (February 20.)

School Materials. H. C. Padgett, Education Office, East Ham, E. (February 27.) See advt. in this issue.

School—Competitive Designs Invited. Premiums £50, £30, and £20. Hy. Hamer, Town Clerk, Town Hall, Preston. (February 28.)

Schools—Designs Invited. Premiums £50 and £25. C. G. Watkins, Education Office, Aylesbury. (February 28.)

School Requisites. Fras. W. Crook, Secretary Kent Education Committee, 44, Bedford Row, W.C. (February 25.)

Sea Wall, &c. A. Tyrer, 10, Cook Street, Liverpool. (February 25.)

Sewage Tanks, &c. Town Clerk, Wrexham. (March 1.)

Sewers and Sewage Disposal Works. J. Griffith, Town Clerk, Town Hall, Newcastle-under-Lyne. (February 22.)

Sewers. R. W. Staniland, Town Clerk, Municipal Buildings, Boston. (March 7.)

Sewerage Works. W. R. Parrott, Clerk to Rural District Council, High Street, Stony Stratford. (February 28.)

Stables—Erection of. J. A. Johnson, Town Clerk, Town Hall, Walworth Road. (March 1.) See advt. in this issue.

Stationery. Leonard Potts, Town Clerk, Council Office, Poplar. (February 26.) See advt. in No. 627.

Street Works. F. E. Hilleary, Town Clerk, Town Hall, West Ham, E. (February 28.) See advt. in No. 628.)

Supplies. W. R. Foskett, Clerk to the Managers Poplar Sick Asylum, Bromley, Middlesex, E. (March 14.) See advt. in this issue.

Supplies. E. Haslehurst, Clerk to Guardians, Union Offices, Park House, Beckenham Lane, Bromley. (March 31.)

Supplies. S. A. Lewis, Clerk to Guardians, Barnes Street, Commercial Road East, E. (March 9.)

Supplies. J. Edgell, Clerk to Guardians, Union Offices, Coombe Road, Kingston-on-Thames. (February 28.)

Tea. W. R. Foskett, Clerk to the Managers Poplar Sick Asylum, Bromley, Middlesex, E. (March 8.) See advt. in this issue.

Tramcars, with Electrical Equipment. C. E. Wilson, Town Clerk, Town Hall, East Ham, E. (February 21.) See advt. in 628.

Tramways—Construction of. J. Moore Hayton, Town Clerk, Court Buildings, South Shields. (February 20.)

Vertical Boiler, Washington Lyon Disinfector, and Laundry Apparatus for Sale. Stanley W. Ball, Public Offices, Dyne Road, Kilburn. See advt. in No. 628.

Water Supply Contracts. Thomas Bates, Clerk to District Council, Glemsford, Suffolk. (March 1.)

TO CONTRACTORS.

IT WILL PAY YOU
to Subscribe to
THE MUNICIPAL JOURNAL.

Office: 12, SALISBURY SQUARE, LONDON, E.C.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CARTOONS.
Specialists in Photo.-Litho.
Photo-Copies, and Sun Prints,
VACHER & SONS. Westminster.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS.
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

ROAD SCAVENGER.
F. COWLEY, C.E.,
Launceston, Cornwall.

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION

IS FAR IN EXCESS

OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL, 12, SALISBURY SQUARE, LONDON.

IRON and WOOD FRAMED BUILDINGS (EVERY DESCRIPTION), **BUNGALOWS, CHURCHES**
AT LOWEST COST.

CHARLES LEATHER & SONS
(ESTABLISHED 1862),
114, MERTON ROAD, and RAILWAY WHARF,
WANDSWORTH, LONDON, S.W.

WILLIAMSON
ASHTON-UNDER-LYNE,
Telephone 320.

FOR
TICKETS
AND
PUNCHES
FOR
TRAMWAYS, &c.
TICKET NIPPERS.
TICKETS, DATING MACHINES, AND ISSUING CASES
FOR RAILWAYS, BATHS, &c.

BLACKMAN

ELECTRIC FANS.

GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N. and at ARBROATH.

SHEATH BROTHERS,
SQUEEGEE MANUFACTURERS,

Borough Councils and Railway Companies.

Borough Councils and Railway Companies.

87, CITY ROAD, LONDON.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment.
LONDON, W.C.
Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

BONDS are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary SHIRLEY FUSSELL.

IDRIS ROYAL MINERAL WATERS

The Purest and Best.

IDRIS & CO., Ltd., Camden Town, LONDON, N.W.; And at LIVERPOOL, SOUTHAMPTON, and CANTERBURY.

D. STEWART & CO.,

General Drapery, Clothing and Bedding Contractors

WITH COUNTY COUNCILS, BOARDS OF GUARDIANS, COMMITTEES OF ASYLUMS, HOSPITALS AND SCHOOLS.

Blankets, Bedsteads, Bedding, Calicoes, Carpets, Clothing, Dress Materials, Flaxens, Flannels, Furniture, Flocks, Haberdashery, Hessians, Hollands, Hosiery, Linoleum, Pillow Linens, Prints, Shirtings, Sheetings (Cotton), Sheetings (Linen), Table Linens, Towels, Towelling, Waterproof Sheeting, Window Hollands

D. S. & Co. at present hold Contracts with many of the largest Institutions in London and the Provinces.

TENDERS INVITED.

D. STEWART & CO., 16, STAINING LANE, GRESHAM ST., LONDON, E.C.

Telegraphic Address—"Centralize, London." Telephone—521 Bank.

To Municipal Authorities, Public Institutions and Companies.

MIDDLETON BROS. respectfully request that they may be favoured with Forms of Tender for

OILS, PAINTS, COLOURS, VARNISHES, LEAD and GLASS, LUBRICANTS, SOAPS and CHANDLERY, OILMENS' SUNDRIES, and DISINFECTANTS.

MIDDLETON BROS.,

10, 11, & 186, ST. GEORGE STREET, E. (London Docks),

OIL & COLOUR MERCHANTS, PAINT MANUFACTURERS, &c.

Contractors to H.M. Government, Boards of Guardians, Railway Companies, &c., &c., for over 30 years.

In the Press.

Price 1s. 6d. Post free 1s. 10d.

THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.

LONDON: EDWARD LLOYD, LIMITED
12, SALISBURY SQUARE, E.C.

NOW READY. PRICE 3s. 6d. POST FREE, 3s. 11d. NOW READY.

THE MUNICIPAL YEAR BOOK for 1905.

OFFICIALLY REVISED—IMPROVED AND EXTENDED.

EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, FLEET STREET, LONDON E.C.

EQUIFEX DISINFECTORS

SATURATED STEAM (Patent)

Adopted by the Metropolitan Asylums Board for the Brook Hospital; H.M. War Office for the ROYAL VICTORIA HOSPITAL, NETLEY, and by the Governments of India, Victoria, New South Wales, &c.; and the recent Disinfection Stations of the Boroughs of Lambeth, Fulham, Battersea, Brighton, &c., &c.

Rapidity in Operation. Absolute Immunity from Damage by Scorching. Economy in Fuel. Automatic Control and Record of the Work Done.

The only apparatus complying with the recommendations of the International Sanitary Congress, Buda-Pesth, 1894. Only Medal for Steam Disinfectors, Sanitary Institute Congresse, and highest awards wherever exhibited. Over 1,200 in actual use in all parts of the world.

SPRAY DISINFECTORS, for ROOMS, &c., reduces to a minimum the disturbance of Inmates. Cost a fraction of the time and expense required in use of SO_2, and disinfect with certainty. THOUSANDS IN ACTUAL USE.

THE PASTEUR FILTER

The only Filter awarded Grand Prix Paris, 1900.

OFFICIAL GOVERNMENT STATEMENT.

"Wherever the Pasteur Filter has been applied Typhoid Fever has disappeared."

J. DEFRIES & SONS, Ltd., 146 & 147, HOUNDSDITCH, LONDON, E.C.

Printed and Published by EDWARD LLOYD, Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE MUNICIPAL JOURNAL

No. 630.—Vol. XIV. FRIDAY, FEB. 24, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. One Penny.

Official Advertisements.

COUNTY BOROUGH OF DEVONPORT.

TREASURER'S DEPARTMENT.

APPLICATIONS are invited for the Appointment of BOOKKEEPER, at a salary of £110 per annum. Candidates must have a good knowledge of municipal accountancy, and be engaged in a Treasurer's or Accountant's Department of a municipality at the present time. Age 23 to 30.

The selected candidate will be required to reside within the borough.

Applications, in own handwriting, stating age, present occupation, and experience, accompanied by copies of not more than three recent testimonials, to be sent in by the 28th February, 1905, to the undersigned, endorsed "Bookkeeper."

H. J. HOARE,
Borough Treasurer.

Devonport.
10th February, 1905.

ACTON URBAN DISTRICT COUNCIL.

ACCOUNTANT'S DEPARTMENT.

APPLICATIONS are invited for the post of LEDGER and GENERAL CLERK in the Accountant's Department, at a commencing salary of £104 per annum. Candidates must have had previous experience in a municipal accountant's office.

Applications, in candidates' own handwriting, stating age and experience, with copies of three recent testimonials, should reach the undersigned not later than 12 noon on Tuesday, the 7th March next, endorsed "Clerkship."

SAMUEL LORD.
Accountant to the Council.

Council Offices,
242, High Street, Acton,
London, W.
22nd February, 1905.

JOHANNESBURG MUNICIPALITY.

DEPUTY TOWN CLERK.

APPLICATIONS are invited for the post of DEPUTY TOWN CLERK for the Municipality of Johannesburg, at a commencing salary of £800 per annum.

Applicants to be barristers or solicitors.

The succ ssful applicant must be prepared to take up his duties immediately on appointment, and will be entitled to receive half pay from the date of his leaving England for South Africa.

Applications, stating age and experience, with copies of testimonials, must be addressed to the Municipality's Agents in London.

E. W. Carling and Co.,
St. Dunstan's Buildings, St. Dunstan's Hill, London, E.C.,

and must be received not later than 28th February, 1905.

RICHARD FEETHAM,
Town Clerk,

11th February, 1905. Johannesburg.

Official Advertisements

THE ROYAL BOROUGH OF KENSINGTON.

PUBLIC HEALTH DEPARTMENT.

APPOINTMENT OF HEALTH VISITOR.

THE Council of the Royal Borough of Kensington are about to temporarily appoint a properly qualified woman to act in the capacity of HEALTH VISITOR in the Borough, and now invite Applications for the position. Candidates must be between 25 and 40 years of age, and will be required to show that they possess special knowledge or practical experience in matters of hygiene, and particularly in the feeding, nursing, and rearing of children. The salary will be at the rate of £100 per annum.

Applications must be made in the candidates' own handwriting on printed forms to be obtained at this Hall, and must be delivered to the undersigned, accompanied by copies of not more than three testimonials of recent date, by 4 o'clock in the afternoon of Friday, the 3rd March, 1905.

Personal canvassing of any member of the Council will be a disqualification.

WM. CHAMBERS LEETE,
Town Clerk.

Town Hall,
Kensington, W.
16th February, 1905.

BOROUGH OF BERMONDSEY.

DISTRICT FOREMEN.

APPLICATIONS are invited for three vacant positions of DISTRICT FOREMEN. The persons selected will be responsible for the road, sewer, scavenging, and dusting work in the district to which each is appointed, subject to the control of the General Superintendent as to road and sewer work, the control of the Scavenging Superintendent as to street cleansing, and the control of the Dusting Superintendent as to removal of house and trade refuse.

Applicants must have had experience in the work mentioned, and be well able to control and manage large bodies of workmen. The salary will be £2 10s. per week, without pension. Successful applicants will be required to live in the borough.

Applications must be on forms to be obtained from the undersigned, and must be delivered not later than 4 p.m. on Monday, 6th March, 1905.

Canvassing, personally or otherwise, will disqualify.

FREDK. RYALL,
Town Clerk.

Town Hall, Spa Road, S.E.
18th February, 1905.

COUNTY BOROUGH OF SUNDERLAND

THE Corporation are prepared to receive LOANS of £50 and upwards on security of the Rates of the Borough, at six months' notice or for a fixed period.

For further particulars apply to Haswell Brown, Borough Accountant, Town Hall, Sunderland.

15th December, 1904.

Official Advertisements.

EAST HAM CORPORATION.

APPOINTMENT OF CLERKS IN THE TREASURER'S DEPARTMENT.

THE East Ham Town Council invite Applications for the following posts in their Treasurer's Department:—Five General CLERKS. Fourth Grade. Age 18 to 23. Salary £60 per annum, rising by annual increments of £10 to £100 per annum.

Applications, in candidates' own handwriting, on forms to be obtained from the Borough Treasurer, Mr. Geo. H. Fry, at the Town Hall, East Ham, E., and accompanied by copies of three recent testimonials (which will not be returned), to be sent in, addressed to "The Chairman, Finance Committee, Town Hall, East Ham, E.," and endorsed "General Clerk," not later than 12 o'clock noon on Saturday, the 4th March, 1905.

The candidates for the posts will be required to submit themselves for such examination as may be deemed necessary. They will also on appointment be required to devote the whole of their time to the duties of the office.

Canvassing the members of the Council, either directly or indirectly, is strictly prohibited, and will disqualify.

By order.

C. E. WILSON,
Town Clerk.

Town Hall,
East Ham, E.
16th February, 1905.

CITY OF LEEDS.

SUB-STATION EQUIPMENTS.

THE Corporation of Leeds invite TENDERS for the SUPPLY and ERECTION of ROTARY CONVERTERS, Transformers, High and Low Tension Switchboards, &c., for the complete equipment of two sub-stations.

Copies of the specification, together with form of tender and general conditions of contract, can be obtained on and after Tuesday, February 28th, 1905, from Mr. J. B. Hamilton, General Manager, Leeds City Tramways, on payment of two guineas, which sum will be returned on receipt of a bona fide tender.

Tenders, on the forms supplied, sealed and endorsed "Tender for Sub-station Equipments," must be addressed to the Town Clerk, Town Hall, Leeds, and delivered on or before 10 a.m. on Tuesday, March 14th, 1905.

The Corporation do not bind themselves to accept the lowest or any tender.

R. E. FOX,
Town Clerk.

Town Hall, Leeds.
20th February, 1905.

PROMOTION impossible without good Penmanship. Rapid tuition. Send stamp for Prospectus No. 18. N. Broadbent (Prizeman and Medallist), Alston's College, Burnley.

WILL JENKINS

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

EXPANDED STEEL

For ARMOURED CONCRETE & FIREPROOF CONSTRUCTION

FOUNDATIONS.
WALLS.
FLOORS.
ROOFS.
RESERVOIRS.
SEWAGE TANKS.
CONDUITS.
BRIDGES.
GRAIN SILOS.
&c.

IT SAVES 75 PER CENT. IN BULK OF CONCRETE.

Write for Handbook on Practice, Tests, and Tables of Approved Formulæ or any other information.

Remarkable Example of Cement Plaster Work on Expanded Metal.

THE NEW EXPANDED METAL CO., Ltd.,

Telephone—419 Westminster. YORK MANSION, YORK STREET, WESTMINSTER, S.W. Telegrams—Distend, London.

NOW READY. PRICE 3s. 6d. POST FREE, 4s. NOW READY.

THE MUNICIPAL YEAR BOOK for 1905.

OFFICIALLY REVISED—IMPROVED AND EXTENDED.

EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, FLEET STREET, LONDON E.C.

TEMPERANCE PERMANENT

BUILDING SOCIETY,

4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS

For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager.

PEARL ASSURANCE CO.,

LIMITED.

Chief Offices—London Bridge, City, E.C.

Annual Income	£1,382,000
Funds Increased during year 1904 by ...	£352,000
Claims Paid	£4,263,000

Additional representatives wanted.

P. J. FOLEY, Managing Director.

BIRKBECK BANK

ESTABLISHED 1851.

2½ per cent. INTEREST

allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST

allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.
STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C.

EATON & KNAPP,

BOILER SETTERS & FURNACE BUILDERS,

Repairs in Boiler Brickwork & Dust Destructors of all kinds.

ESTIMATES FREE.

23, CLACTON ROAD, WALTHAMSTOW.

WILLIAMSON

ASHTON-UNDER-LYNE,

Telephone 320.

FOR TICKETS AND PUNCHES FOR TRAMWAYS, &c.

TICKET NIPPERS.

TICKETS, DATING MACHINES, AND ISSUING CASES

FOR RAILWAYS, BATHS, &c.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

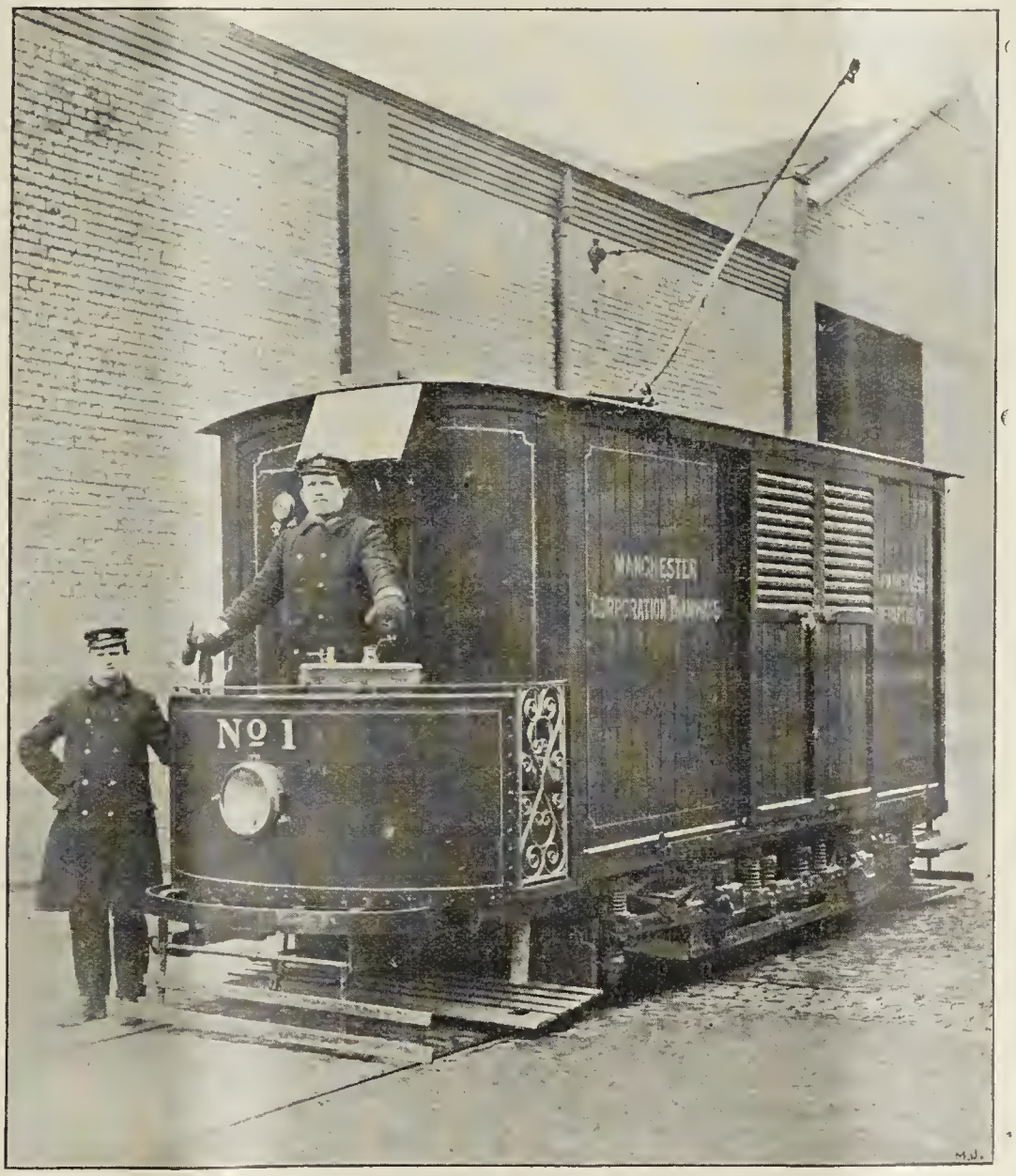
THE MUNICIPAL JOURNAL
ESTABLISHED AS "LONDON" THIRTEENTH YEAR OF ISSUE

No. 630.—Vol. XIV. FEBRUARY 24, 1905.

PARCELS BY TRAMWAY.

An Interesting Development of the Use of Manchester's Splendid System of Tramways is the Inauguration of Parcels Carrying. How the New Undertaking will be Worked. The Cry of Municipal Trading and a Speedy Failure Predicted by Interested Parties.

IN starting a new system of parcel carrying by municipal tramway, the Manchester Corporation is setting a splendid example to other large towns in the country. Sound business and public convenience are by no means incompatible. In providing these parcels freight-cars, a photograph of one of which is reproduced on this page, the Corporation feels that it will be making fuller use of a magnificent system of electric tramways measuring nearly 140 miles of single track. The city, in fact, is the centre of a great tramway system which links together a number of towns, and the whole of this system was, until May, 1901, worked partly under leases from the various local authorities and partly (as owners) by the Manchester Carriage and Tramways Company by horse-traction. The leases from the Salford and Oldham Corporations to the company of the lines within those boroughs expired in 1901, and the local authorities thereupon took over the lines within their respective districts, and proceeded to reconstruct the same for electric traction.



MANCHESTER CORPORATION'S NEW PARCELS VAN.

Why should not this splendid network of communication be used for carrying the goods as well as the bodies of the ratepayers who own it? Why should it not be worked to its utmost limits both for the public good and the public purse? There are no answers to these questions except the one that has in the past often been raised against the municipal tramcars *per se*, viz., that it competes with private enterprise, and consequently subordinates the privileges of the few to the rights of the many. An official of one of the carrying firms of the city has declared: "There are no big profits in the parcels-carrying trade at the rates now prevailing. What profit there is depends entirely upon conducting a large business on the most economical lines. And from my experience I do not believe the Corporation will be able to do that." The competition is certainly a little hard on the half-dozen parcel carriers of Manchester. Competition always is hard, for progress is conditioned largely by competition. But why should the Corporation fail? With its tramways system it should be able to do the work much cheaper than it could be done by van. The wish is father to the thought..

The new parcels freight vans are 12 feet long and 6 feet wide, the interiors being well lighted with incandescent electric lamps. They are fitted with hooks and movable shelves for convenience in dealing with the various classes of traffic for the conveyance of which they will be made use of. It will also be seen that for purposes of ventilation the sliding doors are of the Venetian pattern. As in the case of the passenger cars, there are platforms back and front. The parcels vans will not work to any set time-table at first, being sent according to the exigencies of the traffic. The parcels will be taken by tram to different centres, where distribution and collection offices will be worked. The charges proposed to be levied range from twopence to sixpence for 14lb. to 112lb. parcels in the "inner area," and from threepence to eightpence in the "outer area."

LOCAL GOVERNMENT FINANCE.

The Latest Local Taxation Returns of England and Wales and What They Teach. An Advance of Six per Cent. in Aggregate Nett Expenditure. Profit to the Community. The Current Income of Corporations Increased Over 13 per Cent. How the Money is Spent. Debt on Reproductive Undertakings.

THE Summary of the Local Taxation Returns for England and Wales for 1902-3, to which we briefly alluded in our last issue, deals with the financial operations of 28,128 authorities, as compared with 28,322 authorities included in the Summary for 1901-2. The smaller number, of course, is an indication of the absorption of subordinate bodies by their larger neighbours, and, so far from implying any decrease in revenue or expenditure, represents a considerable expansion in administrative powers, with a corresponding extension of financial activity. The aggregate nett receipts, including loans, of the various authorities was £129,206,784, as compared with £121,554,966 in the preceding year, an increase of nearly 6 per cent., chiefly in current revenue items. The aggregate nett expenditure was £128,968,743, as against £121,239,955, or an advance of over 6 per cent., loan outlay increasing as fast as ordinary disbursements. The following tables show the distribution of receipts and payments amongst the principal groups of authorities, and also the leading items set forth in the accounts:—

CURRENT INCOME.

	1902-3. £	1901-2. £	+Inc. or −Dec. £
Poor Law Authorities	15,638,141	14,302,556	+1,335,585
County Councils	14,127,989	13,304,685	+823,304
Corporations	40,704,363	35,975,961	+4,728,402
Urban District Councils	8,391,437	7,745,253	+646,184
Rural District Councils	3,998,046	3,724,555	+274,491
School Boards	11,317,134	10,600,708	+716,426
Miscellaneous Bodies	10,513,523	11,252,940	−739,417
Total	104,691,633	96,906,658	+7,784,967

CURRENT EXPENDITURE.

	1902-3. £	1901-2. £	Increase. £
Poor Law Authorities	15,568,188	14,455,801	1,112,387
County Councils	14,174,050	13,488,080	685,970
Corporations	40,322,680	37,926,526	2,396,154
Urban District Councils	8,350,033	7,742,211	607,822
Rural District Councils	3,917,629	3,771,500	146,129
School Boards	11,186,697	10,504,760	681,937
Miscellaneous Bodies	10,212,037	9,637,389	574,648
Total	103,731,314	97,526,267	+6,205,047

LOAN RECEIPTS.

	1902-3. £	1901-2. £	+Inc. or −Dec. £
Poor Law Authorities	2,205,860	2,024,907	+180,953
County Councils	4,271,394	4,483,374	−211,980
Corporations	18,540,190	19,143,911	−603,721
Urban District Councils	3,934,119	4,194,963	−262,844
Rural District Councils	694,027	717,779	−23,752
School Boards	2,320,774	2,227,370	+93,404
Miscellaneous Bodies	3,307,003	1,583,811	+1,723,192
Total	35,271,367	34,376,115	+895,252

LOAN DISBURSEMENTS.

	1902-3. £	1901-2. £	+Inc. or −Dec. £
Poor Law Authorities	2,165,278	1,944,895	+220,383
County Councils	4,995,154	3,769,647	+1,225,507
Corporations	19,054,603	19,274,946	−220,343
Urban District Councils	3,916,421	4,102,940	−186,519
Rural District Councils	670,357	671,017	−660
School Boards	2,312,051	2,324,075	−12,024
Miscellaneous Bodies	2,972,334	1,775,234	+1,197,100
Total	36,086,198	33,862,754	+2,223,444

NETT AGGREGATE TOTALS
(After Allowing for Duplicate Entries.)

REVENUE.

	1902-3. £	1901-2. £	Increase. £
Current	93,935,417	87,178,851	6,756,566
Loan	35,271,367	34,376,115	895,252
Total	129,206,784	121,554,966	7,651,818

EXPENDITURE.

	1902-3. £	1901-2. £	Increase. £
Current	92,882,545	87,377,201	5,505,344
Loan	36,086,198	33,862,754	2,223,444
Total	128,968,743	121,239,955	7,728,788

CONSTITUTION OF CURRENT REVENUE.

	Amount. £	Proportion of total. Per cent.
Rates	50,328,412	53·6
Government grants	12,782,803	13·6
Rents and profits	2,412,144	2·6
Waterworks	4,184,611	4·5
Gasworks	7,168,705	7·6
Electricity works	1,881,265	2·0
Tramways	3,797,758	4·0
Harbours and docks	3,228,666	3·4
Miscellaneous	8,151,053	8·7
Total	93,935,417	100?

DISTRIBUTION OF CURRENT EXPENDITURE

	Amount. £	Proportion of total. Per cent.
Debt service	20,287,264	22·0
Education	10,816,038	11·6
Electricity works	929,701	1·0
Gasworks	5,381,018	5·8
Harbours and docks	1,889,235	2·0
Tramways	2,417,711	2·6
Waterworks	1,725,075	1·8
Highways	9,955,581	10·7
Lighting	1,708,356	1·8
Lunacy	2,779,759	3·0
Poor relief	9,646,440	10·4
Police	5,720,038	6·1
Sewerage	1,961,702	2·1
Garbage disposal	2,014,966	2·1
Miscellaneous	15,649,661	17·0
Total	92,882,545	100·0

How We Stand.

A glance at these tables will put our readers in possession at once of the salient features of the summary. The predominant position of the municipalities is shown very clearly by the statistics. They take nearly 40 per cent. of the aggregate current revenue, and their increased income during the period under review accounts for more than half of the total gain. Most other groups of authorities progress slowly, either because they operate in circumvented limits, or because their numbers are kept down by the promotion of their wealthiest members to higher grades. Poor Law bodies are the only other class that at all keep pace with corporations in the larger use of their functions, and this is mainly on the social and scientific side, and is proof of the greater humanity and common sense with which their duties are now discharged. The current income of corporations increased over 13 per cent., and that of Poor Law authorities nearly 10 per cent.; the advance in ordinary expenditure of these bodies was 6 and 8 per cent. respectively. A good half of current revenue is still derived from rates, and there is a fractional increase in the proportion. State subsidies, on the other hand, show a tendency to decline, and the ratio has fallen from 14·3 to 13·6 per cent. The most interesting subject in current income, however, that all municipalists will first turn to is that relating to the receipts from reproductive undertakings. In the summary these receipts show far less advantageously, of course, than in the particular accounts to which they belong, but even when immersed in the total finances of all the local authorities of the country their importance cannot be disguised. The revenue of the five leading concerns—waterworks, gasworks, electricity works, harbours and docks, and tramways—represents 21·5 per cent. of the aggregate income, whilst outlay in connection with such ventures amounts to only 13·2 per cent. of the total expenditure, a very good proof of their remunerative character.

Public Services in Order of Cost.

The actual sum received was £20,261,005, an increase of nearly 10 per cent., and the surplus over expenditure was £7,918,265, equal to nearly 5 per cent. on the capital locked up in the undertakings mentioned. The debt service absorbed £7,498,691, leaving a nett profit of £419,574. The profit to the community was really a great deal more than this sum indicates, as it excludes all consideration of low charges, efficient service, and payments in respect of capital not yet earning revenue. Amongst the items of expenditure of authorities as a whole the chief place is taken by loan charges, and following this it is satisfactory to see that education fills the next place. Poor relief and highways, however, are close behind and almost tie for third position. The outstanding loans of all local bodies amounted at the end of the year to £370,607,493, which is an increase of 8 per cent. as compared with 1901-2. The details of this indebtedness are shown below:—

OUTSTANDING LOANS.

	1902-3. £	1901-2. £	Increase. £
Poor Law Authorities	14,664,102	13,234,715	1,429,387
County Councils	39,911,827	37,162,816	2,749,011
Corporations	200,061,101	184,167,836	15,893,265
Urban District Councils	27,916,573	25,721,216	2,195,357
Rural District Councils	4,180,105	3,719,992	460,113
School Boards	33,816,546	32,206,781	1,609,765
Miscellaneous bodies	50,057,239	47,203,226	2,854,013
Total	370,607,493	343,416,582	27,190,911

DISTRIBUTION OF DEBT.

	Amount. £	Proportion of total. Per cent.
Waterworks	63,130,859	17·1
Highways	43,918,732	11·8
Harbours and Docks	39,743,881	10·7
Sewerage	34,652,048	9·3
Schools	33,816,546	9·1
Gasworks	23,110,919	6·3
Electricity Works	18,550,120	5·0
Tramways	17,137,744	4·6
Poor Law	12,284,022	3·3
Lunatic Asylums	9,151,721	2·5
Markets	7,663,708	2·1
Open Spaces	7,585,912	2·1
Housing	7,176,510	1·9
Public Buildings	6,726,249	1·8
Miscellaneous	45,958,522	12·4
Total	370,607,493	100·0

Of the total debt the group of reproductive undertakings already referred to account for 43·7 per cent. The outlay in connection with poor relief strikes one as being relatively very small, but that on lunatic asylums should be added to get a proper idea of the capital commitments for which the Poor Law is also responsible. The average amount of outstanding indebtedness per head of population was £11 4s. 8d., as compared with £10 10s. 7d. The average rate, based on the assessable value, was 5s. 7·4d., as against 5s. 3·8d., and the sum raised was equal to £1 10s. 6d., as compared with £1 8s. 6d. per capita. The average rate in London was 1s. 6·4d. higher than in the rest of England and Wales.

"POOR LAW EXTRAORDINARY."

IRREGULARLY ELECTED GUARDIANS TO RETIRE.

THE extraordinary situation of the Medway Board of Guardians—reported in our last issue, and extensively quoted by the London press—caused by the discovery that Gillingham is not entitled to the nine guardians who have represented that borough on the board for just two years, is now regarded as practically settled. An Order has been issued confirming the return of the first six on the poll at the election in 1903; allotting nine guardians to the borough for the future, and promising to divide the borough into wards for Poor Law purposes, as requested.

This decision means, however, that three of the present nine representatives will have to retire. Two of them are ladies. At a meeting of the guardians on Wednesday the clerk was instructed to write and ask the County Council if an election had to take place at once in order to fill the three extra seats, or if they must remain vacant till the time of the ordinary triennial election—March, 1906. The Order does not make this point clear.

During the last two years, the Medway Board's policy has been distinctly progressive. Among other reforms, it has adopted cottage homes for children, with excellent results, and has carried through the re-valuation of the union, at a cost of over £2,000. The law officers of the L.G.B. have expressed the opinion that the irregularity at the election does not in any way invalidate any decision arrived at by the Board.

"TRADING" RESULTS AT SOUTHEND.

THE gross profits on the Southend Corporation electric light undertaking last year were £3,808. After meeting interest and instalment charges, £358 was devoted to the relief of the rates.

The gross profits on the street tramways were £2,718, but, after meeting statutory payments, there was a loss of £602.

The gross profits on the pier were £11,654. Of this £4,000 was allocated to the relief of rates.

NEXT WEEK.

FIRST NUMBER OF THE ENLARGED

MUNICIPAL JOURNAL.

NEXT Friday's issue of the MUNICIPAL JOURNAL will be the first of the enlarged series. It will contain many interesting features.

PRIZE ESSAY AWARDS.

The adjudicators in the Prize Essay Competition on "The Municipal Audit" have concluded their arduous task, and Sir Albert Rollit, M.P., the President of the Association of Municipal Corporations, has made his final award as umpire. The prizes to be awarded are:—

FIRST PRIZE, 25 Guineas.
SECOND PRIZE, 15 Guineas.
THIRD PRIZE, 5 Guineas.

The names of the prize winners will be announced uext week, and in the following issue the paper placed first in the competition will be printed.

SPECIAL FEATURES.

Advantage will be taken of the opportunity created by the enlargement to review the present position of municipal euterprise in its principal branches. Special articles will appear ou the following subjects:—

Finance.	Housing.
Electricity Supply.	Education.
Tramways.	Sewage Disposal.
Telephones.	Sanitary Progress.
Gas.	Poor Law.

Insurance.

Every contribution has been specially written for this uumber. That on tramways is by Alderman Sir Charles Petrie, J.P., chairman of the Liverpool Tramways Committee. Sir Charles is the leader of the Liverpool City Council. He is also a member of the Finance Committee. For the municipal year 1901-2 Sir Charles was Lord Mayor of Liverpool, and he was formerly chairman of the Electric Power and Lighting Committee. He has produced a most interesting paper.

"The Present Position of the Sewage Problem" is written by Mr. Arthur J. Martin, Assoc.M.Inst.C.E., member of the Sanitary Institute. Mr. Martin is the author of a book just published, entitled "The Sewage Problem: a review of the evidence collected by the Royal Commission on Sewage Disposal." His knowledge of the subject upon which he writes is unrivalled.

Equally authoritative is the paper ou "Municipal Sanitary Progress and Legislative Reform," by Samuel Rideal, D.Sc. Lond., F.I.C., fellow of University College. Dr. Rideal is a well-known author and authority on his subject.

Mr. A. R. Bennett, M.I.E.E., the telephone expert, writes the Telephones article. That on "Municipal Finance" is by a well-known corporation financier. The Electricity Supply, Gas, Education, Housing, and Poor Law articles are by our own experts.

"The MUNICIPAL JOURNAL'S special analyses of electric tramways accounts" will be a standing feature of the new series. The "Poor Law Outlook" will be extended so as to include specially written and illustrated articles. The Education section will also be developed, aud in every issue we shall publish succinct summaries of the proceedings of local authorities in Council Chamber and Committee Room. A special section will be opened up to deal with business nterests affecting local authorities.

THE TELEPHONES DEAL.

What is the Nation Going to Gain? The Writer Criticises the Agreement for Purchase, and Considers the National Telephone Company's Gains Enormous. The Future Position of Municipal Telephony. How the Municipalities have been Betrayed, and the Need for Immediate Safeguarding Action.

[By Mr. A. R. BENNETT, M.I.E.E.]

PERUSAL of the agreement for telephone purchase proposed by the Post Office reveals many things. Especially is indicated the great need which exists for calm inquiry and caution. A question which naturally arises in one's mind is, "What is the nation going to gain?" The answer may be obvious to the Post Office, but not to the outsider, even if he, like myself, is not altogether unacquainted with practical telephony. This agreement provides for the purchase, on tramway terms, of the company's plant, or such part of it as the Post Office may require, in 1911; but the Select Committee of 1898 said in its report, "the Post Office is under no obligation to buy even the plant of the company in 1911, and the Post Office alone could find a use for such plant should all licences alike be terminated in that year."

What Remains?

So it seems that the Post Office is making a special agreement six years in advance to buy something in respect to which it already possesses what is practically an absolute right to take or reject in 1911. Such a proceeding can scarcely be reckoned a benefit to the nation; and after it, what remains? Simply the right of inter-communication between various insignificant country exchanges of the Post Office, which have never been and never can be of any great consequence; the abolition of terminal fees between these same insignificant country exchanges and those of the National Telephone Company; a right, on paper, couched in words which have proved absolutely ineffective for their purpose in the past, to prevent the company giving preference as between subscriber and subscriber; a right to prescribe the plant to be used by the company (although the company invariably gives a better service than the Post Office wherever they come into competition, so that the inferior is here assuming power to dictate to the superior).

The first two advantages, owing to the smallness of the Post Office exchanges affected, may be described as capable of only microscopic good or evil; the third is something which the Post Office has already power to do in all competitive centres under the Act of 1899, but has found itself powerless to enforce; and the last is a very doubtful benefit as tending to stereotype plant indefinitely, and so restrict invention, progress, and the introduction of improvements. It may also be described as a device for ensuring the placing of practically all orders for future telephone plant in America.

The Company's Haul.

On the other hand, the company's prospective gains are enormous. (1) It preserves the right to maintain its present high rates in non competitive centres till 1911 (and the agreement sayeth not what is to happen thereafter, although the country's unhappy position with regard to trunk lines renders a reasonable forecast easy; (2) it is given a complete monopoly, apart from the present competing centres, until 1911, because it is quite clear that it is not intended to issue any more competing licences. The right to do so is preserved in words, but a study of the text shows that in no case is it intended to exercise it; (3) it is left with a practically free hand to fight. and, if possible, crush, the existing competing municipalities by charging unremunerative rates and giving preferences; (4) it secures the right to usc streets for underground wires without the permission of the local authority since the Post Office undertakes to lay underground pipes and cables for the company wherever it may want them.

Snatching Away a Municipal Right.

Thus the Glasgow and Brighton Corporations, which have always refused the use of their streets to the company, will be obliged to surrender a right hitherto tenaciously retained, and which will certainly be used to compete unfairly with their own undertakings. And this in spite of the fact that Parliament has hitherto most jealously preserved the right of local authorities to control their own streets except in the case of unreasonable obstruction to Post Office requirements. It is difficult not to conclude that one of the chief aims of the agreement is to place the competing municipalities at the greatest possible disadvantage as compared with the company.

The Betrayal of Local Government.

It should be remembered that the corporations undertook the telephone work at the express invitation of the present Parliament, which gave effect to a strong report from one of its own select committees. But the Post Office rises superior to Parliament, and now determines that the corporations are to be discouraged and discriminated against. While stipulating for free inter-communication, and equalisation of rates where it itself competes with the company, and abolition of terminal fees in respect of its own few insignificant country exchanges, it expressly—Clause 9 (3) (c)—denies these benefits to the existing municipal exchanges, the subscribers of which number more than ten times all the country subscribers possessed by the Post Office. Are not municipal telephone subscribers British subjects and entitled to equal consideration with those of the Post Office? From the municipalities has come the only effective opposition which the company has ever known—that of the Post Office it can, and always could, afford to laugh at and disregard—and the company in this agreement has apparently insisted upon the municipalities being burdened with disadvantages which will render the company's hard task in fighting them as easy as possible.

A Short Way.

The design of the Select Committee of 1898 was that the municipalities should rescue the Post Office from the effect of its previous bad bargains with the company, and that municipal competition should render the acquisition in 1911 easier for the nation. The Post Office now appears to be wishful of getting rid of the necessity of ultimately purchasing the municipal systems by making it easy for the company to ruin them. The Post Office likewise agrees to pay for goodwill in those centres where the company's licence has been prolonged beyond 1911. But this prolongation was given on condition that the company should not give any favours or preferences whatsoever as between subscribers. It is notorious that this condition has not been adhered to, so that, instead of undertaking to pay extra in these cases, the prolongation ought to be cancelled.

The Question of Future Rates.

The clause that provides that the agreement becomes binding, if not disapproved by Parliament before the 31st August next, opens up certain curious possibilities. If a dissolution and General Election should occur, and the new Parliament is not able to reach the matter by the 31st August, the company will get this monumental agreement confirmed without the sanction of Parliament.

It is to be hoped that a Select Committee will sit and take evidence without delay. In addition to safeguarding the municipalities—which I regard as absolutely indispensable and a matter of common justice—future telephone users ought to be protected by defining what rates they are to be charged after 1911—a subject which has been very carefully left out of view altogether, although its importance is paramount.

EDUCATIONAL NOTES.

Cottage Homes for the Blind. Combination of Committees in East Anglia. A Whitehall Invoice. Education Rates at Cumberland and Newcastle. Are Pupil Teacher Centres Doomed? Teachers' Agreements. South Kensington—No More!

Berkshire.—The Education Committee has considered the question of inspecting the private schools with a view to recognition by the committee as "efficient" or otherwise. It is proposed to negotiate with the university authorities in order to evolve a scheme for inspection and examination to be inclnded in the general scheme for the co-ordination of secondary education throughout the connty area.

Blind and Deaf Children.—It appears that East Anglia is the only district in the country not provided with an institution for the education of blind and deaf children. At the recent conference of education authorities it was recommended that 200 blind and deaf children should be provided for on the cottage homes plan on a site of seven or eight acres near to some town in East Anglia, at a cost of £15,000, to be borne by the various authorities, based upon population, working out at £100 per 12,000 population. On this basis Yarmouth would contribute £403, Norwich £887, Ipswich £529, Lowestoft £237, and so forth.

Cornwall. — The Board of Education's recent inquiry has cost £30, and the Education Committee is now asked to pay. It was decided to do so on protest.

Cumberland.—The rate for elementary education for the current half-year amounts to 3d. in the £.

Denbighshire. — The Education Committee has approved a scheme for the instruction of candidates for pupil teacherships and of pupil teachers, which has been submitted to the Board of Education. The existing pupil teacher centres in the county, two in number, will continue to exist until all the students in them have passed through their courses, and the pupil teachers being trained at the Colwyn Bay Higher Grade School will also stay where they are till their time is up. But no further students are to be sent to the centres, and, instead, the new scheme will come into operation, perhaps about Midsummer, after it has been approved by the Board of Education. In this scheme the half-time system has been dropped, on the ground that it is unfair both to the elementary schools and to the county schools.

East Sussex.—The Education Committee has decided to adhere to its previous resolutions on the form of agreement between managers and teachers of Voluntary schools, as follows:—(a) That the common seal of the Local Education Authority be not affixed to the form of agreement issued by the National Society; (b) that forms of agreement should contain a clause providing for a properly convened meeting of the managers to dismiss a teacher; (c) that forms of agreement should contain a clause relating to the giving of religious instruction by the teacher, and that such clause should be limited to the terms of the Education Act, 1902.

Hampshire.—The Education Committee has considered a letter from H. M. inspector, pointing out that the present bye-laws, so far as he was aware, stated that the children are to attend school during the whole time that it is open for instruction, and therefore the managers were not entitled to take the children to church or chapel during the time set apart for religious instruction. Unless bye-laws universally applicable are drawn up for the whole area permitting this practice, he suggested that the local education authority should pass a resolution on the subject on the lines which seem best to it. The matter is postponed until the bye-laws are reconsidered.

Huntingdon.—The Education Committee has considered the question of the payment of head teachers for instructing pupil teachers, and has decided to recommend, for training £3, and a bonus of £5 on passing the King's scholarship or equivalent examination.

Kent.—An important matter discussed at the County Education Committee was the possibility of retaining in the service of the county teachers trained in and at the expense of the county. The chairman said he was afraid that it was absolutely impossible to secure that every young person trained in Kent should be kept in Kent. The whole condition of affairs showed that the training of teachers was a national affair, and as such should be undertaken by the National Exchequer, an expression of opinion which received unanimous support.

Lake District.—A conference of the Education Committees of Northumberland, Durham, Cumberland and Westmoreland is to be held next month to discuss various matters of administration in which they are jointly interested. The place of meeting will probably be Carlisle.

Middlesex.—The Education Committee has extended its scheme of scholarships and widely circulated it throughout the county. The scheme makes an effort to more evenly distribute the scholarships and exhibitions among the several divisions of the county. One hundred P. T. scholarships are offered for boys and girls, 23 of which are allotted to the Elementary Education Committee. Fifty scholarships are offered for pupil teachers for training at the University of London Day Training College. In all, 226 scholarships are to be competed for this year.

Newcastle.—The Education Committee considered the financial report, wherein it was stated that the total deficiency was £77,962, as against £54,739, which made an increased deficiency of £23,223. This means that the rates would have to go up about 3d. in the £. The original estimates had been reduced by upwards of £6,000. In striking out this £6,000, at least another 1d. in the £ was saved.

Sheffield.—A Sheffield philanthropist has offered to give the sum of £10,000 towards the University fund on condition that nine other gentlemen give a like amount. Failing this, he will offer £5,000 on similar conditions. The sum required for the University scheme is £170,000, of which £110,000 has been raised.

South Kensington Submerged.—The following has been issued from the Board of Education:—"From February 13 next the administration of the Board of Education in respect of secondary schools under the Board's regulations for secondary schools, as also of charitable trusts and endowments connected therewith, will be conducted in the Board's offices at Whitehall, and not at South Kensington. All correspondence on these matters on and after February 11 should therefore be addressed the Secretary, Board of Education, Whitehall, London, S.W. It will facilitate the expeditious handling of this correspondence if the envelopes bear conspicuously on their front the words 'Secondary Schools.' The telegraphic address for the above-named purposes will remain as at present—viz., 'Secondary Education, London.' This notice does not apply to the Board's administration under the regulations for evening schools, technical institutions, and schools of art and art classes, which will remain for the present at South Kensington, and the telegraphic address will continue to be 'Instruction, London.'"

Widnes.—Some time ago a trained nurse was appointed to visit the elementary schools in Widnes and attend to the personal condition of the children. The result has been a satisfactory increase in the attendance of the scholars, and it has now been agreed to make the nurse a permanent official at a salary of £80 a year.

Winchester.—The Education Committee has decided that no teacher shall be paid until he or she has signed the committee's form of agreement.

Worcester.—The Higher Education Subcommittee has recommended that a scholarship of £5 per annum be awarded to selected candidates for pupil teacherships, to be paid to the governors of such secondary schools in the city as the candidates should attend. The parents or guardians are to give an undertaking that the candidate shall pursue a full course of training in order to become pupil teachers in the schools controlled by the Education Committee, or refund the amount expended.

MORE L.C.C. SCHOLARSHIPS.

ANOTHER BATCH OF 500 BURSARIES.

THE London County Council, having agreed to the recent huge scholarship scheme for London, will shortly have before it a further batch of scholarships, to be devoted to technical and industrial training.

These scholarships consist of a thorough course of training to boys who intend (a) to enter the cabinet making, furniture, or other woodwork industry, or (b) to become gardeners.

There are also scholarships for girls, which afford a course of training in (a) domestic economy, (b) household cookery (for domestic servants), and (c) for teacherships of domestic economy. The blind, deaf, and crippled children are also to have scholarships.

The Education Committee is considering the question (which was recently raised by Sir Melville Beachcroft) as to how far the powers of the Council and the modern industrial conditions of London trades will permit of any suitable modification of the old apprenticeship system being introduced.

It is proposed by the offer of the industrial scholarships to do little more than continue those which existed under the old Technical Education Board. The scheme will in about five years time involve an expenditure of £1,500 a year.

The institutions at which these technical scholarships are tenable are the Shoreditch Technical Institute, belonging to the Council; the Royal Botanical Society's gardens; the various Polytechnics and Technical Institutes where domestic economy is taken as a special subject, and the National Training School for Cookery.

No candidate is eligible whose parents are in receipt of an income of more than £160 a year.

Four hundred and thirty domestic economy scholarships for girls of 13 years of age are to be awarded. Each scholarship consists of free instruction, with meals, and materials for dresses, together with £3 a year for travelling expenses. They are tenable at any of the day polytechnic classes.

There are to be 54 senior cookery scholarships, intended for domestic servants from 17 to 25 years of age, tenable at the National Training School of Cookery, and consisting of free tuition for twelve weeks. Dinner and tea are provided, and £5 a year are allowed for travelling expenses.

The Swanley Horticultural Scholarship for Girls will be held at Swanley, and is valued at £60 a year.

Thirty-six Scholarships for Afflicted Children are offered, viz., twelve to crippled boys or girls, eight to blind boys or girls, six to deaf boys or girls. Their value is £20 a year, with free tuition, and they may be held at any approved institution.

Finally, 25 scholarships, consisting of free instruction for two years (£10 to £20 value), are offered, to be held at the Shoreditch Technical Institute. Candidates must be not less than 13 years old, and must be working in the sixth or higher standard. The small number of these technical scholarships is explained by the fact that there are not many existing institutions where the necessary training can be obtained. This is an admission which is not to the credit of the metropolis, and it is to be hoped the council will turn its energies to the matter at the earliest possible opportunity.

HOUSING PROGRESS.

The Official Monthly Record of the National Housing Reform Council. Insanitary Housing Conditions, and High Infantile Death Rate. Responsibility of Municipalities. Some Causes, and the Need for Immediate Action.

SEVERAL conferences will be arranged during March under the auspices of the National Housing Reform Council. The first of these will be held in the Cleveland district of Yorkshire, where the scarcity of suitable houses for workmen is marked. The second conference will be held at Newcastle-on-Tyne, probably on Saturday, March 11th, and members of local authorities and workmen's organisations on Tyneside will be invited to attend. The third conference will be held at Guildford and will deal with questions of rural housing and small holdings. The secretary will during the month make a series of visits to Durham colliery villages, and prepare reports which will probably be made the basis of representations to local authorities there. Further information concerning these conferences will be gladly given on application by post to Henry R. Aldridge, secretary, 432, Strand, London, W.C.

The most powerful of all arguments in favour of the destruction of slum houses, and the substitution of more wholesome dwelling places, is undoubtedly to be found in the evidence given in the reports of every medical officer of health concerning the close relation of insanitary housing conditions to a high infant death rate. This public health aspect of the housing question will receive special prominence at forthcoming conferences held under the auspices of the National Housing Reform Council, and the facts and figures given below will, it is hoped, be of some service to health and housing reformers generally.

Bad Housing Conditions and Infant Death Rates.

One of the greatest faults in contemporary municipal life is that the majority of citizens take "for granted" the terrible waste of infant life in our large cities. During the past few days the quarterly report of the Registrar General has been published, and probably not 1 per cent. of those who read the grim tables accompanying the report clearly realise that they record a veritable modern "slaughter of the innocents."

Despite the fact that the climatic conditions in the fourth quarter of the year are generally less fatal to infant life than those prevailing in the third quarter, there were no less than 21 large towns of England and Wales with an infant death rate of more than 150 per 1,000 births.

It will be seen from the following table that two Lancashire towns, Burnley and Blackburn, head the list, with an infant death rate of 261 and 252 per 1,000, or more than 1 in 4 of all the children born.

INFANTILE MORTALITY RATES PER 1,000 BIRTHS.
FOURTH QUARTER OF THE YEAR 1904.

Burnley	261	St. Helens	178
Blackburn	252	Stockport	177
York	223	Newcastle-on-Tyne	174
Preston	212	Manchester	170
Sunderland	201	Salford	166
Oldham	194	Leeds	158
Middlesbrough	192	Halifax	154
South Shields	191	Rochdale	152
Birmingham	183	Nottingham	152
Gateshead	186	Coventry	150
Hull	182		

What these Figures Mean.

The waste of life recorded in these figures is enormous. A reduction of 50 per cent. in the rate of infantile mortality in Birmingham, for instance, would mean the saving of about 1,500 lives per annum. The figures, however, by no means clearly show the truth, simply because they are average figures for the complete areas of the towns named. A division of these towns into wards would reveal the fact that the death toll on infant lives is far higher in the slum areas than it is in those districts where richer people dwell.

This will be made clear by the following table of ward rates of infantile mortality in Birmingham, 1904 (whole year):—

Rotton Park	179	St. Martin's	185
All Saints	173	Edgbaston and Harborne	133
Ladywood	192	Deritend	208
St. Paul's	225	Bordesley	146
St. George's	213	Duddeston	216
St. Stephen's	232	Nechells	219
St. Mary's	331	Balsall Heath	150
St. Bartholomew's	263	Saltley	178
Market Hall	187		
St. Thomas's	196		

The rate for the whole city was 195 per 1,000. The most famous pictures of St. Mary—the Madonna Saint—represent her with a babe in her arms. It will be noticed that the St. Mary's Ward of Birmingham has an infant death rate of 331 per 1,000.

The Possibility of Infant Life-saving.

In an editorial article appearing in the *Municipal Journal* on January 27th last, a leading French physician, Mons. Variot, was quoted as declaring that—

> Under similar conditions of life and labour to those obtaining at Le Creusot (France), it should be possible to cut down by half the rates of infantile mortality in the industrial centres.

Dr. Robertson, of Birmingham, says:—

> There seems to be no reason why the infant death rate in Birmingham should not be reduced to less than 100 per 1,000 births, especially when one takes into consideration the very unsatisfactory conditions which prevail in many of the districts where the rate is already below that figure.

If these statements be true—and all who have carefully studied the question are convinced that they are, beyond question, scientifically true—then a tremendous responsibility rests upon the members of our municipal bodies.

We are apt to speak of present municipal progress as a development to be wondered at. The real truth is that we are merely beginning to understand and fulfil the elementary duties of municipal life.

The Causes of Infant Death.

The causes of a very heavy infant death rate are many and various, but the greatest undoubtedly are—

(1) Insanitary housing conditions.
(2) Ignorance and neglect in regard to feeding, &c.
(3) Poverty of the parents.
(4) The effect of factory life on the mothers.

The poverty of the agricultural labourer is quite as great as that of the town labourer, but, nevertheless, the effects of sunshine and pure air and more wholesome sanitary conditions is shown by the fact that the five English counties with the lowest death rate, in 1901, were all agricultural.

Wiltshire	91	per	1,000
Rutlandshire	95	,,	,,
Westmoreland	95	,,	,,
Hertfordshire	96	,,	,,
Huntingdonshire	96	,,	,,

With regard to the general importance of the causes above-named, I cannot do better than quote from the extremely valuable report published in June, 1904, by Dr. Robertson, medical officer of health for Birmingham:—

> It will be found in a large number of the more unhealthy districts that the income from all sources is insufficient to maintain mere physical fitness. The numbers affected by poverty are difficult to ascertain, but in many districts they exceed 25 per cent. of the total population, and it may be as great as 50 per cent. in the poorest districts. It is scarcely necessary to point out that much of the poverty is due to "drink," and, therefore, that any reform which has for its object the reduction of this evil must be welcomed by all who are anxious to reduce the heavy infantile mortality which occurs among the children of those who spend money in drink which should go to purchase necessaries for their children. To a lesser extent poverty due to insufficient wages is a real and important cause of high mortality among children. It may be taken that for the mere necessities of life a town labourer, with wife and three children, requires 22s. per week. The number of households with proportionately a smaller income than this is considerable. In nearly all cases where poverty exists the children suffer to a greater extent than the adults. Insufficient and unsuitable food tells on the children much sooner than the adults. It stunts their growth and development, and renders them infinitely more liable to disease. Those who are accustomed to deal with workhouse children, and children in institutions for waifs and strays, can best appreciate how pernicious are the effects of poverty on the constitutions of these unfortunate children.

Proper Feeding.

The need for the full performance of maternal duties is shown in two sets of figures quoted by Dr. Robertson.

In 1903 the deaths of 236 infants under six months were investigated by the health visitors of Birmingham, and it was found that the children were fed as follows:—

Babies who died from epidemic diarrhœa.	Breast-fed only 10 %	Out of 236 cases investigated.
	Breast and bottle 10 %	
	Bottle only ... 80 %	

The figures point to the fact that the food and the method of feeding, in Birmingham as elsewhere, play the most important part in the incidence of disease.

Dr. Hope, medical officer of health for Liverpool, has shown that the incidence of fatal summer diarrhœa is fifteen times greater on children under three months of age who are bottle-fed than it is on an equal number of children who are breast-fed.

His figures are:—

		Infants.
Deaths from epidemic diarrhœa, 0-3 months	Breast-fed,	20 deaths per 1,000
	Bottle-fed,	300 ,, ,, ,,

Dr. Robertson adds:—

> From the above facts and from an intimate acquaintance with the clinical and public health aspects of this disease for over 20 years, I have no hesitation in grouping it as a filth disease, and in advising that its prevention is mainly to be accomplished along lines directed to secure greater cleanliness in the food and surroundings of young infants.

Insanitary Houses.

Dr. Robertson deals with this cause of death in the following way:—

> From an examination of a number of small houses in Birmingham, there is undoubted evidence that a large proportion of them are badly constructed, and have unhealthy surroundings.
>
> A large number of the occupants of such houses are distinctly dirty in their habits from ignorance and carelessness. As a consequence, the house conditions are rendered much worse than they need be. Even with cleanly people living in such houses it is almost certain that a high infantile mortality would occur as a result of the house conditions themselves. But the people occupying many such houses are dirty in every conceivable way. They keep their houses in a dirty condition, their clothes and those of their children are dirty, as also are their bodies. The food brought into such houses soon becomes contaminated.

Municipal Milk Depots.

The value of municipal and other milk depots has now been placed beyond question by the experiments of Dr. Hope at Liverpool and Dr. McCleary at Battersea. When a mother is herself so poorly fed and anæmic that she cannot give natural milk to her child, then the adoption of a right system of artificial feeding is of extreme importance.

The Need for Municipal Experiment.

It is comparatively easy to draw up a list of remedies, but to apply these remedies is quite another matter.

To propose that every slum should be demolished and give place to sanitary, clean, and comfortable houses would be looked upon as a proposal to attain municipal perfection at a bound. The need for severely punishing neglectful parents might gain more favour, but statesmen have hardly yet commenced to grapple with the causes of the poverty which is so fruitful as a cause of disease and death. The task of earning daily "bread and butter" will still compel many a wife to seek work in a factory instead of preparing to fulfil maternal duties or nursing her little one in the best of all ways, at the human breast.

The provision of municipal milk depôts is also regarded as on the "border line" of municipal trading, and only a few municipal authorities have taken the necessary steps to establish them.

The great need, therefore, is for municipal experiment. The best way to discover the value or otherwise of any of these suggested lines of action will be to make them the subject of actual experiment. Municipal councillors will thus be rendering an invaluable service to the citizens they represent, and will help to remove the terrible reproach that, despite all our knowledge of science and the resources of our civilisation, the lives of thousands of little children are wasted annually by that "want of thought" which is quite as dire in its effects as "want of heart."

HENRY R. ALDRIDGE.

"MEDICAL RELIEF."

Further Hints as to Carrying out the Great and Needed Reform of Combining the Administration of the Sanitary Departments of Town Councils with those of Boards of Guardians. How Far are Existing Sanitary Provisions Observed? The Place of the School Attendance Officer in this Suggested Scheme of Co-operation. Inter-representation on the Bodies Concerned.

(By J. THEODORE DODD, M.A., Councillor and Guardian.)

THE suggestion, made by the writer of the "Poor Law Outlook," for co-operation between the Poor Law officers and the sanitary staff, is most excellent. There are some instances of it already, which, although slight, form useful precedents.

Co-operation Under Present Law.

Thus, by the General Order of the 12th February, 1879, every Poor Law medical officer, upon the occurrence of any case of contagious, infectious, or epidemic disease of a dangerous character among his pauper patients, is bonnd to give notice to the sanitary authorities. If this were fully carried out and applied to measles, whooping-cough, mumps, and chicken-pox—and, moreover, the like duty of notifying was imposed on the relieving officer—the council would often (1) obtain early information so as to enable it to prevent children in an infected house from attending school; (2) have medical inspection of cases snpposed to be chicken-pox; (3) have steps taken for isolation. By Sec. 93 of the Public Health Act, 1875, information of nuisances "may" be given by relieving officers. This is only permissive, but in London they have an express duty in this respect.

For, by Sec. 3 of the Public Health Act (London), 1891, it is the duty of every relieving officer, in accordance with the regulations of the authority having control over him, to give notice to the sanitary authority of any nnisance liable to be summarily dealt with; and it is the duty of the (Poor Law) authority to make the said regulations.

I wonder how far these sanitary provisions are really observed.

Suggested Extensions.

It onght, of course, to be the duty (both in London and elsewhere) for the Poor Law officers to give notice to the sanitary authority of nuisances, over-crowding, and infectious disease; and, on the other hand, as is suggested in your issue of the 10th inst., the sanitary inspectors should give notice to the relieving officer of gennine poverty needing relief.

At the present time, owing to the lack of co-operation, there is a small but very serious change in our system of administration. If a family have children with scarlet fever, and there is no isolation hospital available, is full, or the children cannot be moved, the relieving officer may decline to give the milk, &c., necessary for the children, on the ground that the family, though impoverished by the disease, are not actually destitute. Yet the sanitary authority has (apparently) no power to expand the district rate on supplying the needed nourishment outside the hospital. It might, if it liked, rent a house, call it a hospital, and then give the children milk. This would, however, be rather like Charles Lamb's Chinamen who burned down houses for the sake of roasting pigs. With co-operation as suggested, the medical officer of health would inform the relieving officer as to the children's necessities, and they would then be duly supplied.

There are some exceptional duties of the relieving officer which should certainly be transferred to the sanitary inspector, viz., the burial, under a jnstice's order, of bodies of those who have died of infectious disease, or are retained unburied under dangerous conditions (Public Health Act, 1875, Sec. 142; Infectious Diseases Prevention Act, 1890, Sec. 10). The work of the relieving officer takes him much among children, and he should not be exposed to risks of infection unnecessarily, while the sanitary inspector is always necessarily in contact with infection, and is, we may hope, practically immune. At all events, he has the better means at his disposal of preventing the spread of infection both to himself and others than the relieving officer possesses, and has, moreover, greater experience. In cases of serious infectious disease, also, it might be better to authorise the relieving officer to accept the report of the sanitary officials as to destitution, *i.e.*, the needs of the family, and to give the relief through those officials, so as to avoid personal contact. In a doubtful case the relief might be given on loan.

Education Committee.

Besides the sanitary department, there is the education committee of the town council, whose officers are brought into frequent touch with the lives of the poor. The school officers should not only report all cases of infectious disease to the health officials, but should inform the relieving officer of any cases of

MR. STANLEY WILSON
(Leigh Town Clerk.)

destitution among the children. These would need very careful investigation, and would sometimes result not in "relief" in the ordinary sense, but in prosecution of the parent, or in visits from the Society for Protection of Children, to stimulate parental responsibility. It is now by statute the duty of a parent to seek poor relief if he has no means of maintaining his children without (57 and 58 Vict., c. 41, Secs. 1, 23). The school attendance officer should also, of course, report nuisances and overcrowding.

This scheme of co operation would obviously give a little additional work to the officers of both council and guardians, for which they would fairly be entitled to a slight increase of salary; but the public would be well repaid by the greater efficiency of local administration.

Representation of Council on Board of Guardians.

There is, however, one more step towards co-operation.

At present all Poor Law guardians are directly elected except chairmen, vice-chairmen, and not more than two other guardians. (Local Government Act, 1894, Sec. 20 (7). This provision was, no doubt, inserted with a view of retaining the services of persons who had been, at the time the statute was passed, guardians *ex officio*. I should be in favour now of abolishing this system of "co option" (which was condemned by Burn's "Ecclesiastical Law" more than 100 years ago), and substitute four guardians appointed by the town council from its own body. This would give the sanitary authority a power which it would use for the benefit of the pnblic health. If fnrther justification is needed, it should be remembered that the councils are large contributors to the finances of the guardians, both by payments made out of the so-called "Exchequer contribntion," and as large ratepayers. In Oxford, under local Acts, the mayor is an *ex-officio* guardian, and ten aldermen and councillors are elected guardians annually by the city council. The connection of the Oxford Corporation and guardians is considerably more than 100 years old. Its preservation is partly due to the fact that the University has special representation on the Board also, and partly to the fact that it works very well.

LEIGH'S NEW TOWN CLERK.

APPOINTMENT OF MR. STANLEY WILSON.

MR. STANLEY WILSON, deputy town clerk of Warrington, has this week been appointed town clerk of Leigh, at a commencing salary of £400, rising by £50 annual increments to £600. He succeeds Mr. Peregrine Thomas, who has been appointed town clerk of Burnley.

Mr. Wilson, who has had a wide experience of municipal work, extending over a period of 22 years, is the son of a prominent Warrington townsman. He entered the town clerk's office in 1882, and, step by step, worked throngh the various grades of promotion. He served his articles to the town clerk of Warrington (Mr. J. Lyon Whittle). In 1890 he was appointed assistant town clerk, and eight years later deputy town clerk. He was admitted a solicitor in the early part of 1901.

Warrington has an estimated population of 68,000, rateable value of £252,498, area 3,116 acres, inhabited houses 12,871. The Corporation owns the gas, water, electricity, and tramways undertakings, and the cemetery, infectious diseases hospitals (including small-pox sanatorium), sanitary depot and refuse destructors, free library, museum and art gallery, technical school, public baths, public gymnasium, parks and recreation grounds.

During Mr. Wilson's term of office the borough has almost donbled itself in area, population, and assessable value. For the past 15 years the Town Council has been particularly active and progressive in developing and extending the various municipal works.

Mr. Wilson has taken an important part in obtaining Acts of Parliament, Provisional and other Orders, dealing with snch matters as the purchase and extension of the water undertaking, two extensions of the boundaries of the borough, purchase of parks and recreation grounds, consolidation of the debt, unification of parishes, tramways, light railways, electric lighting, &c. He has also had much experience in the conduct of Parliamentary and municipal elections, in advocacy, &c.

Mr. Wilson is 39 years of age. In 1893 he married the eldest daughter of the late Mr. Charles Twiss, Head Master of the People's College. He has a family of three children. The new town clerk takes np his duties in the early part of the next month.

COUNTY COUNCILS AND THE BURDEN OF TAXATION.

AT a meeting of the Executive Council of the County Councils Association at Westminster, on Wednesday, it was resolved, "That the attention of the Government be drawn to the urgent necessity of relieving rateable property from the heavy burden now cast upon it by the rates for education and highway purposes."

The following deputation was appointed to wait upon the Prime Minister:—The chairman, the Duke of Northumberland, Lord Thring, Sir C. T. D. Acland, Mr. Hobhouse, M.P., Colonel Pryce Jones, M.P., the Hon. Dudley Leigh, Sir James Rankin, M.P., Sir E. Strachey, M.P., Mr. C. P. Trevelyan, M.P., and Mr. F. W. Verney.

THE ORIGIN OF MUNICIPALITIES.*

How to Distinguish Early Corporations. Local Government During the Tudor Period. The Waning Control of the Burgesses and "Self-Election." The Position of Trustees or Commissioners in the Government of the Towns. The "Lucrative Exercise" of the Electoral Franchise.

[*By MR. EDWARD R. PICKMERE, M.A., Town Clerk of Liverpool.*]

III.

WE find that punishment was dealt out to many persons for committing breaches of the local laws. To give some examples, for baking and brewing not being free, for ploughing the common lands, for turning a watercourse, for washing wool, skins, and flax at the common well of the town (a natural spring situate near the site of St. George's Hall), for lodging guests "who do not go to church," for refusing to sell a quart of ale for three-halfpence, for selling goods not being free. A knave was presented for using two measures, "a large one to buy and a small one to sell with."

The freemen of the towns were those who held burgage lands under the Crown, and hence their name "burgesses;" but there were many persons freemen in the Tudor times who did not hold lands, viz., the sons of freemen, freemen who had become so by serving an apprenticeship to freemen—freemen by purchase, and freemen by gift. All freemen paid fines on admission excepting the holders of burgage tenures and freemen by gift. The younger sons of burgesses and the freemen by apprenticeship were expected to give a pot of ale upon admission. Those better off gave ale, wine and cakes, and one of them gave a small collation which cost 5s. The sums paid for admission to freedom of the town depended on the mayor and burgesses (paid by strangers), and was a source of income to the corporation.

For Good Government.

We thus see that in the reign of Queen Elizabeth (if we may take Liverpool as an example) the towns had attained to a very distinct and definite form of local government, and that the municipality enforced its laws and bye-laws very strictly for the good government of the town and to protect its trade interests. The Merchant Guilds and the governing bodies of the towns in which such guilds existed had in most cases become merged, and, as is evidenced by the punishments dealt out in Liverpool to certain persons for selling, "not being free," the Liverpool Corporation, *i.e.*, the mayor, bailiffs, and burgesses, were one and the same body. The Charter granted to Liverpool by Henry III. confirms the Charter of King John (which made the town a free borough), and confirms and grants that the borough may have a Guild Merchant with a house (*i e.*, a hall for receiving customs or for meetings) and other liberties, and that no one who shall not be of that guild shall traffic in any merchandise unless by consent of the burgesses. The Charter granted by Henry III. differs from that granted by King John in this respect, that whereas John's Charter grants free liberties and customs to the burgage tenants, that of Henry III. recognises a close Corporation, and gives the right of free trade to those only who are members of that Corporation. The other liberties granted to this Corporation or Guild were, "to have Soc and Sac Thol and Theam, and were free from toll, &c., in other seaports. "Soc and Sac" was the privilege of holding courts and imposing penalties. "Thol" was a tax on seamen's wages received on coming ashore. "Theam" was the right of following and capturing serfs who escaped from bondage. It will thus be seen that the Charter of Henry III. recognised a corporation in Liverpool. It is not certain, but it is very probable, that the common seal of Liverpool came into existence about this time, as a seal may almost be called an emblem of incorporation, for without it the Corporation could not execute its legal and other documents. The incorporation would also confer the right and duty of electing officers. The head of the community at this time would be the bailiff, which is the Norman name for the old "reeve" of the Saxons. This person was originally the King's officer, responsible for the collection of the Royal rents and customs, and as the area of the bailiff's jurisdiction (called the bailiwick) was usually sold by the Crown to the highest bidder, the bailiff employed a system of extortion to make the largest profit he could out of his purchase. In course of time the burgesses became the purchasers of the Royal dues themselves, and so became free from the rapacity of the King's officers. There are many instances of such transactions having taken place throughout England during the Plantagenet period, and on the day after the granting of his Charter to the Liverpool burgesses Henry III. granted to them the town of Liverpool on a lease for four years at a rent of £10 per annum.

Distinguishing Marks.

From the manner in which Liverpool became an incorporated town, and taking it as an instance of the growth of towns generally, we may draw the conclusion that the towns, having reached a certain stage of growth, and having some form of government, were confirmed in that government by the Charter granted to each respectively. In fact, the charters rather confirmed than created the form of government in the boroughs and towns. The distinguishing marks of a corporation are (1) the right of perpetual succession, (2) to sue and be sued by name, (3) to purchase and hold lands, (4) to have a common seal, and (5) to make bye-laws. We find that on the accession of Henry VIII. there were about 200 boroughs in England with a mayor, aldermen, and council, having certain defined privileges and duties. We therefore find that in the Tudor period the form of local government in towns had attained to the position in which it existed at the date of the passing of M.C. Act of 1835. But in or about the year 1683 the freedom of the boroughs was attacked by Charles II., who, desiring to pack his Parliament with members who would support the Crown, issued writs of *quo warranto*, by which the towns were deprived of their Charters, and new Charters were granted. By these Charters Charles reserved to himself the right of nominating the members of the council. The famous Judge Jeffreys, who went on the Northern circuit in 1684, is said to have boasted that "he made all the Charters like the walls of Jericho fall down before him, and that he returned laden with surrenders the spoils of the towns." Liverpool was one of these unfortunate towns, and in the first year of the reign of James II. it was summoned to surrender its ancient Charters to Jeffreys, which was accordingly done by a deputation consisting of the mayor, 16 members of the Council, and a town clerk. Shortly afterwards the town received a new Charter, in which the King assumed the power of removing any member of the Council, and, as a matter of fact, two members who had opposed the King were, in the year 1687, removed from their offices.

Powers Slipping Away.

After the revolution, the Charters granted, or I might rather say imposed, by Charles II. and James II. were rescinded, and the ancient Charters confirmed. As regards Liverpool, the Charter of Charles I. was restored, but it must be observed that, so far as the burgesses of the towns were concerned, their rights had, by the creation of a definite administrative body, become gradually more and more restricted. The Council being self-elective, became exclusive, and more disposed to take into its own hands the powers which were formerly enjoyed by the old burgage tenants or burgesses. The burgesses had still the right of meeting in common hall, but their control was merely nominal, as the meetings ultimately fell into disuse. From the reign of Charles II. to the Reform Act of 1832 the history of the boroughs is parliamentary rather than municipal, and the freedom of the borough was chiefly valuable for the party vote which it conferred. Between the Revolution and the Municipal Corporations Act of 1835 the Charters granted exhibited a total disregard of any consistent plan for the improvement of municipal policy corresponding with the progress of society. In the greater number of cases the Corporation had gradually parted with the duty and responsibility belonging to good municipal government. By local Acts of Parliament the powers of lighting, watching, cleaning, supplying water, had been conferred, not upon the municipal corporations, but upon trustees or commissioners who were empowered to levy the necessary rates. Fortunately for the towns themselves, and for the future welfare of the country as a whole, such a condition of affairs could not, and was not, allowed to continue, and on the 18th July, 1834, a Royal Commission was appointed to inquire as to the existing state of municipal corporations in England and Wales. This commission, one of the most important that was ever appointed in the country, made a most exhaustive inquiry, and found there were 246 corporations in England and Wales possessing or exercising municipal functions.

Governing Class and Representation.

The report of the Commissioners was issued early in the year 1835, and in the sketch given of the early constitution of the corporation the Commissioners state that, "the greater number of the governing Charters of corporations was granted between the reign of Henry VIII. and the Revolution. The general characteristic of these documents is, that they are calculated to take away power from the community, and to render the governing class independent of the main body of the burgesses. Almost all the councils named in these Charters are established on the principles of "self election."

The Commissioners found that most of the Charters incorporated the men and the inhabitants of the borough, but the governing power had become vested in a small body of persons, and in this class of boroughs the freemen had no share in Corporation affairs. In these boroughs where the Charters designated the corporate body as a small and definite number of persons, the principal mode of entering the corporate body was by the nomination of the ruling body; the selection being in some cases from persons qualified either by residence or by right of freedom by birth, marriage, or servitude. In other cases the choice of the electors was unfettered by any conditions of eligibility in the persons chosen, this manner of obtaining the freedom being by gift or purchase. In most boroughs the governing body was the mayor and common council—sometimes the mayor, bailiffs, and council. The council was again divided into aldermen and common councilmen—the former in some cases having powers beyond those of the councilmen. The members of the Council were elected usually by themselves. In some cases they were nominated by the mayor, and held office generally for life. The functions of the governing body were to make bye-laws, to raise revenues by taxation, to appoint and settle salaries of corporate officers, and to manage the corporate property. In many cases they elected the magistrates and chose the members of Parliament for the borough. The Commissioners found that in many towns there were no watchmen, no police officers of any kind except the constables, who were unsalaried officers. They were sometimes appointed at a court leet, more frequently by the Corporation. The police, and the powers conferred by local Acts for paving, lighting, and watching the town, were seldom exclusively in the jurisdiction of the Corporation. Sometimes they were shared by the Corporation and Commissioners, sometimes vested in Commissioners alone.

(*To be concluded.*)

* From a lecture delivered at Liverpool University.

NOTES AND ANSWERS.

The Cost of "Making-up" Private Streets. Several More Questions on this Important Subject. Printing the Reports of Metropolitan Borough Councils Compulsory. Companies Supplying Electricity Over Large Areas. Some Important Questions Answered.

636.—PRIVATE STREET WORKS—L.G.B. Inquiry—Private Improvement Expenses.—Having regard to the extensive powers a district council has under Sec. 150 of the Public Health Act, 1875, to compel paving, &c., of a private street, how is it that in a particular case in which I am interested a Local Government Board inquiry is necessary? One is to be held, and it is proposed to borrow money to make up the street, which money is to be treated as a private improvement expense. Why should this particular procedure be resorted to when the council is apparently clothed with ample powers to get the work done by the owners, or to recover the cost by summary means if it does it itself? Is an inquiry of the kind mentioned of advantage to those who will be called upon to pay for the work, and what can they do to obtain such advantage? It seems likely that time will be allowed for payment, which is of much consequence in the present instance.—"H."

The urban authority is empowered by Sec. 150 of the Public Health Act, 1875, by order to declare the expenses incurred in making up a private street under that section to be private improvement expenses. The effect of so doing is explained by Sec. 233 of the same Act. It is there provided that, whenever an urban authority has incurred expenses, and such expenses have been lawfully declared private improvement expenses, the authority may, if thought fit, make and levy on the occupier of the premises in respect of which the expenses have been incurred a rate, to be called a private improvement rate, of such amount as will be sufficient to discharge such expenses, together with interest at a rate not exceeding five per cent. per annum, in such period, not exceeding 30 years, as the urban authority may determine. By virtue of Sec. 233 of the Act of 1875, the urban council may borrow for this as for other purposes of the Public Health Acts, provided the sanction of the Local Government Board is obtained. Where a loan is applied for by a local authority, it is the practice of that Board to hold a local inquiry preliminary to consenting to the proposed loan and fixing the period of repayment. We should, therefore, infer in this case that the local authority intends to declare the expenses of "making-up" the street private improvement expenses; that the L.G.B. inquiry is to be held solely on the ground that a loan has been applied for; and that the consequence will be that frontagers will not be required to pay their share of the expense of "making-up" in one sum, but will be allowed a period not exceeding the period which may be prescribed by the L.G.B. for the repayment of the loan.

637.—ANNUAL REPORT OF METROPOLITAN BOROUGH COUNCIL—Must be Open to Inspection of Ratepayers and Sold to them if Required.—Are the London borough councils exempted from the obligation imposed by Act of Parliament on the late London vestries of issuing an annual report and supplying a copy thereof to any ratepayer on payment of 2d.? On applying at the Town Hall of this borough for a copy of the annual report, we are informed that none have been issued since 1901. If this reactionary borough council is in default in this respect, what would be the best plan of action to compel it to conform to its obligations in this particular?—"A. G."

The old law in respect to this matter which applied to vestries now applies to their successors, the metropolitan borough councils. Sec. 198 of the Metropolis Management Act, 1855, as applied by Secs. 31 (2) and 35 (2) of the London Government Act, 1899, provides, that every such council shall, in June of each year, print a report of its proceedings, and of the works commenced and completed, respectively, in the preceding year, and the works remaining in progress at the termination of such year, and also of any proceedings taken under its authority in the preceding year in pursuance of any regulations of the L.G.B. for the removal of nuisance or the improvement of the sanitary condition of the borough. The council is also required by same enactments to send a copy of every such report, together with the names and addresses of the councillors and officers of the borough, to the London County Council; and to permit inspection at the borough offices of a copy of any such report by any ratepayer in the borough, without payment, at all reasonable times, and also to permit the like inspection by the public generally of such list of officers. Further, it is provided, that copies of such report and the list of officers shall be delivered to any person applying for the same, on payment of such reasonable sums not exceeding twopence for each copy, as may be fixed by the council.

In reply to the last part of our correspondent's query, it seems to us that the best course to pursue would be to formally lay the matter by letter before the council, on his own behalf and that of the other ratepayers whom he represents, and at the same time communicate with his representative on the council, or with some other councillor of progressive views, with a view to securing that his complaint shall be brought before and considered by the council.

638.—MAKING-UP HIGHWAY—Widening—Powers of Local Authority—Query No. 634 in Last Week's Issue.—I am obliged for your kind reply. The highway in question has been repaired by the parish for certain knowledge quite 50 years, and it is reasonable to suppose for probably over 100. There have been a good many new buildings to this road during the past few years, nearly the whole of the opposite side being built on, and the frontagers have given land to widen the road, under threats from the surveyor to prosecute, and also refusal to pass plans of building. The six houses referred to in my previous query as adjoining my land were built four years ago, during the existence of the urban council, and, there being then another surveyor from the present one, no request to set back and widen was made; and so opposite these houses the road is not of the width required by the bye-laws made under the new Private Street Act. I presume the circumstance under which an old highway is termed a "new street" is when the same has not been kept in repair by the parish. If this information affects your previous advice, I should be glad to hear from you.—"FARMER."

We have little to add to our reply of last week. The question raised appears to be one of unusual difficulty and complication, and our correspondent would do well to lay all the facts before his legal adviser, as it is impossible to deal adequately with the case by mere query and answer. It now appears that the six houses adjoining have been allowed to be built in contravention of the bye-laws affecting the width of this "street." The council has no power to allow a departure from such bye-laws unless they contain a special proviso to this effect. Although this infringement has been allowed, the council is still entitled to insist on the bye-law being complied with in future cases, and can therefore require our correspondent to construct his proposed new buildings so as to allow the full width prescribed for the "street" in the bye-law. There seems to be a considerable amount of evidence tending to show that the "street" is a highway repairable by the inhabitants at large, and, if so, the frontagers cannot be compelled to make it up by paving, channelling, &c. We have assumed that there is no local Act in force varying the provisions of the ordinary law.

639.—ELECTRIC POWER COMPANY—Effect and Scope of its Private Act.—(1) Where an electric power company has an Act of Parliament defining as its area of supply the whole of a county, can it, for the purpose of giving off a supply in bulk, enter a burgh situated within its area of supply without the consent of the local authority, or without further application to the Board of Trade?

(2) Once the company has obtained its Act, are Sec. 3 (Sub-sec. 1) and Sec. 4 (Sub-sec. 1) of the Electricity Act, 1882, inoperative?

(3) Is the omission of a local authority to oppose the company's Act held to be consent, as required by Sec. 3, Sub-sec. 1, of Electric Lighting Act, 1882?—"N. B."

(1) The answer to the question will depend in each case on the terms of the private Act under which each particular electric power company carries on its undertaking. We have examined the Act in the case our correspondent refers to. It makes the area of supply of the power company coincident with the county, but energy must not be supplied by the company in any area which, at the passing of the Act, was the area of supply of any "authorised distributors," except with the consent of those distributors, such consent not to be unreasonably withheld. In other words, Parliament aims at protecting the interests of existing companies or local authorities having powers in connection with the supply and distribution of electricity, but will not allow such persons or authorities to stand in the way of the power company as obstructors. The Board of Trade may be called in to determine the question whether or not any such consent as that referred to is, under the circumstances, unreasonably withheld; apart from this, that Board has no jurisdiction so as to restrain the company or empower it to supply electricity to particular places in the area of supply.

(2) Sec. 3 (1) of the Electric Lighting Act, 1882, provides that the consent of the local authority is necessary to the application for a licence from the Board of Trade to supply an area with electricity. This only applies to licences, and these are practically obsolete. Sec. 4 (1) of the same Act empowers the Board of Trade, by Provisional Order, to authorise any local authority, company, or person to supply electricity for any public or private purpose within any area, without requiring such consents as are required to the granting of a licence, provided that no Provisional Order shall authorise the supply of electricity within the district of any local authority unless due notice in accordance with the Board of Trade rules has been given to the local authority by the applicants. This enactment applies to Provisional Orders only, and not to private Acts. Notices in accordance with the prescribed rules are required to be given to local authorities and parties interested, where a private Bill is promoted (as has been done in the present case), but the Bill having passed into law, the question of whether or not sufficient notices have been given has now become of merely academic or theoretic interest. We understand from our correspondent that the company's proposals were not advertised in the most widely read paper of the town principally affected. This point cannot be raised now, and we doubt whether at any time it would have had any validity.

(3) Where consent is required to a particular proposal, it is quite certain that the mere omission by a local authority to oppose a Bill will not be considered equivalent to consent. But on this matter also, as in the question of notices, or any other matters which may be required to be complied with before a Bill is submitted to Parliament, it must be assumed, now that the Bill has become law, that the rules have been duly complied with.

From a communication received with these queries we understand that the town council of the most populous borough in the company's area of supply proposes to apply to the Board of Trade for a Provisional Order authorising it to supply electricity within the borough for lighting and power purposes, thus making the council "authorised distributors." The company under its private Act can supply the borough in bulk. Most probably the council's application will be acceded to, but we should say that the council will be required to obtain the necessary supply of electricity in bulk from the company. We may add that the company is required by Sec. 44 of its Act to supply energy in bulk to "authorised distributors" within its area of supply, at rates not exceeding the prices specified in the schedule to the Act. The legal position of these electric power companies generally was considered in an article which appeared in the *Municipal Journal* of the 8th July last.

640.—USE OF URBAN DISTRICT COUNCIL'S MATERIALS BY SURVEYOR AND COUNCILLORS FOR PRIVATE PURPOSES.—Is it legal for a surveyor to an urban council to use at his private house materials from the council's depot, or for a councillor to do the same?—"INQUIRER."

It is illegal for the surveyor or a councillor or any other person, without authority from the council, to use for private purposes materials belonging to the council. The offence may amount to the crime of larceny, and be punishable as such. Our correspondent might properly bring the matter to the notice of the council, through the clerk or otherwise. He might also with advantage call attention to these malpractices at the yearly audit of the accounts of the council before the Government Auditor. Such audit will be publicly advertised in due course. It may be possible for the auditor to take steps to surcharge the offending parties with the value of the stores misappropriated, or, at least, to report the matter formally to the council.

Official Advertisements.

COUNTY BOROUGH OF CROYDON.

TENDERS FOR MATERIALS.

NOTICE is Hereby Given that the Council are prepared to receive TENDERS for the SUPPLY of the undermentioned MATERIALS:—

Broken Granite.
Granite Chippings.
Hand-picked Land Flints.
Dug Flints.
Chalk Flints.
Kentish Flints.
Sand.
Kentish Ragstone.

Forms for tendering, with full particulars of the various places of delivery, &c., may be obtained on application to the Borough Road Surveyor, Town Hall, Croydon.

Tenders will only be received subject to the terms of the draft contract, which has been deposited at the office of the Borough Road Surveyor aforesaid, and may be inspected during office hours.

Tenders to be sent to me by 11 o'clock in the forenoon on Wednesday, 1st March, 1905, endorsed "Tender for Road Material."

The Council will not be bound to accept the lowest or any tender.

F. C. LLOYD,
Town Clerk.

Town Hall, Croydon.
15th February, 1905.

URBAN DISTRICT OF FINCHLEY.

ANNUAL CONTRACTS.

THE Council of the above district invites TENDERS for the following for the year ending 31st March, 1906:—

1. Heavy Castings.
2. Disinfectants.
3. Coal and Coke.
4. Forage.
5. Gravel, Hoggin, and Flints.
6. Broken Granite.
7. Printing, Stationery, and Books.
8. Typewriting Requisites.
9. (a) Lias Lime and Portland Cement, (b) Grey Lime.
10. Stoneware Pipes and Goods—(a) London make, (b) country make.
11. Removal of Dust and House Refuse (for whole district or separate wards).
12. Slab Footway Paving and Tar Paving.
13. Team Labour—(a) Cartage to and from Railway Stations, (b) General Cartage.
14. Horsing Water Vans, Brooms, Scrapers, &c.
15. Shovels, Brooms, and General Ironmongery.
16. Petroleum, Lubricating Oils, and Sundries.

Forms of tender, conditions, and full particulars may be had on application at the undermentioned offices, on and after the 28th instant.

Sealed tenders, marked "Tender for No.——," addressed to the undersigned, must be delivered not later than 5 p.m. on the 14th proximo.

The Council does not bind itself to accept the lowest or any tender.

E. H. LISTER,
Clerk to the Council.

Council Offices,
Church End, Finchley, N.
21st February, 1905.

URBAN DISTRICT OF PENGE.

ANNUAL CONTRACTS.

THE Urban District Council of Penge hereby invite TENDERS for the SUPPLY of the following for One Year, beginning on the 1st April, 1905, viz.:—

Horse Hire.
Granite Macadam, &c.
Brooms, &c.
Kentish Flints, &c.
Cement and Lime.
Removal of House and Trade Refuse.
Disinfectants.
Drysaltery.

Forms of tendering (which alone will be received), with full particulars of the various places of delivery, &c., may be obtained on application to the Surveyor, Mr. H. W. Longdin, Town Hall, Anerley, S.E., on and after the 23rd day of February, 1905.

Sealed tenders, endorsed "Tender for ——," as the case may be, to be delivered to me, the undersigned, not later than 5 p.m. on Monday, the 6th day of March, 1905.

The Council do not bind themselves to accept the lowest or any tender.

Dated this 17th day of February, 1905.

C. W. DOMMETT,
Clerk to the Council.

Town Hall, Anerley, S.E.

Official Advertisements.

E. R.

THE Receiver of Wreck, Custom House, Lowestoft, has for SALE 41 Electric Light Arc Globes of the following dimensions:—Diameters: Top to bottom, 15¾ inches; middle, 16½ inches; top opening, 7¾ inches; bottom opening, 3¾ inches. Suitable for lighting of streets or workshops. Offers invited. Purchaser to pack and remove at own risk. The globes are in good condition, and are being sold for salvage.

THE URBAN DISTRICT COUNCIL OF BARNES.

ANNUAL CONTRACTS.

THE above Council are prepared to receive TENDERS for the SUPPLY of the following for the Twelve Months ending April 1st, 1906:—

1. Broken Guernsey Granite.
2. Broken Flints and Thames Ballast.
3. Horses and Carts on Hire.
4. Smiths' Work.
5. Ironmongery, &c.
6. Removal of Refuse by Barges.
7. Portland Cement.
8. Forage and Litter.
9. Granite Kerb and Channel.
10. Paving Slabs.
11. Oils, Paints, &c.

Particulars and forms of tender may be obtained of the Engineer and Surveyor at the Council Offices, where tenders, sealed and endorsed "Tender for Granite," "Tender for Flints," &c., must be sent in not later than 12 o'clock noon on Monday, the 13th day of March, 1905.

No tender will be considered except on the prescribed form.

The Council do not bind themselves to accept the lowest or any tender.

By order.
G. BRUCE TOMES, Assoc.M.Inst.C.E.,
Engineer and Surveyor.

Council Offices,
High Street, Mortlake, S.W.
16th February, 1905.

PARISH OF FULHAM.

CONTRACTS FOR SUPPLIES.

THE Guardians of the above-named Parish will, at their meeting to be held on Thursday, the 9th day of March, 1905, be prepared to receive TENDERS for supplying them with the following GOODS for the undermentioned periods from the 26th March next:—

SIX MONTHS.

1. Butcher's Meat.
2. Flour.
3. Cheesemongery.
4. Grocery.
5. Fish.
6. Poultry.
7. Greengrocery.

TWELVE MONTHS.

8. Tobacco.
9. Milk.
10. Potatoes.
11. Cornchandlery.
12. Oils and Colours.
13. Wines and Spirits.
14. Hosiery and Haberdashery.
15. Woollen Goods.
16. Carpets and Bedding.
17. Uniforms (Male Officers').
18. Waterproof Sheeting.
19. Linen Goods.
20. Cotton Goods.
21. Hats and Caps.
22. Inmates' Clothing.
23. Overalls.
24. Brushes.
25. Earthenware.
26. Ironmongery.
27. Boots and Shoes.
28. Printing.
29. Conveyances.
30. Funerals.
31. Drugs.
32. Druggists' Sundries

Forms of tender, containing full particulars and conditions, with estimates of quantities required, may be obtained on application at my Office, or by forwarding to me a stamped addressed foolscap envelope.

Samples and patterns of the goods can be inspected at the Guardians' Offices, between the hours of 10 and 12 and 2 and 4 o'clock daily, during the fortnight ending 4th March.

Tenders, properly endorsed, and accompanied by samples (where required), must be delivered at my Office not later than 4 o'clock in the afternoon of Wednesday, the 8th day of March, 1905.

The Guardians do not bind themselves to accept the lowest or any tender.

By order.
E. J. MOTT,
Clerk to the Guardians.

Guardians' Offices,
Fulham Palace Road,
Hammersmith, W.
18th February, 1905.

Official Advertisements.

POPLAR UNION.

CONTRACTS.

THE Guardians of the above-named Union will meet at the Board Room, Upper North Street, Poplar, on Friday, March 10th at 6.30 p.m., for the purpose of receiving

TENDERS

From persons desirous of contracting for the SUPPLY of—

Bread (Sumpner's Farm, Laindon, only), Flour, Meat, Cheesemongery, Greengrocery, Grocery, Mealman's Goods, Ales and Stout, Milk, Poultry, Yeast, Soap, Oilman's Goods, Brushes, Disinfectants, Earthenware, Tobacco and Snuff, Children's Underclothing, Clothing Materials, Officers' Uniforms, Drapery, Haberdashery, Tailors' Articles, Boots, Leather, Ironmongery, Electrical Supplies, Lead and Glass, Builders' Materials, Drugs, Conveyances, Funerals, Printing, Stationery, Account Books.

For Twelve Months from Lady Day next, and for

COAL and COKE

for three months from Lady Day next.

Printed forms of Tender, which alone can be received, containing full particulars of contract, conditions, and estimates of quantities required, may be obtained on personal application at my office, or by forwarding to me an addressed envelope (foolscap size), duly stamped.

Permits to view the patterns of manufactured articles can be obtained on or before the 9th March, at the Clerk's Office, 45, Upper North Street, Poplar, and inspection of the patterns will be allowed daily between the hours of 10 and 12, and 2 and 4.

Sealed tenders, with samples where required, must be delivered at the Clerk's Office, Upper North Street, not later than 6.30 p.m. on Friday, March 10th, 1905, except in the case of Flour samples, which must be delivered not later than 8th March.

The Guardians do not bind themselves to accept the lowest or any tender, and reserve the right to have any of the articles contracted for analysed by a duly qualified analyst, and the expenses of such analysis (if the articles are of inferior quality) will be charged to the contractor, together with any loss the Guardians may incur by reason of having to enter into contract with other persons on that account.

By order.
G. HERBERT LOUGH,
Clerk to the Guardians.

Union Offices,
45, Upper North Street,
Poplar, E.
February, 1905.

STAINES UNION.

CONTRACTS FOR SUPPLIES, &c.

THE Guardians of the Staines Union invite TENDERS for the SUPPLY and DELIVERY of the following ARTICLES during the Six Months commencing on the 26th day of March next, and ending on the 30th day of September next, both days inclusive, viz.:—Bread, Flour, Butcher's Meat, Grocery, Oilman's Goods, Wine, Spirits, &c., Firewood and Coals.

Tenders are also invited for the SUPPLY of the following for the Twelve Months commencing on the 26th day of March, 1905, and ending on the 31st day of March, 1906, both days inclusive, viz., Milk, Drapery and Clothing, Boots and Shoes, Brushes and Mats, Funerals, Printing and Stationery, Ironmongery, Earthenware, and the Hair Cutting and Shaving of the Inmates of the Workhouse.

Particulars may be known on application to me, the undersigned, or to the Master of the Workhouse at Stanwell, near Staines, where samples of the goods may be seen.

Forms of tender and conditions of contract can be obtained of me, the undersigned, or of the Master of the Workhouse, and no tender will be received unless upon the prescribed form.

Security will be required for the performance of the contracts, and each contract must be signed by the sureties.

The Guardians do not bind themselves to accept the lowest or any tender, and tenders must be sent to me not later than Monday, the 6th day of March next, endorsed "Tender for ——."

FRANK HUTCHINSON,
Clerk to the Guardians.

Clerk's Office,
Ashford, Middlesex.
13th February, 1905.

Official Advertisements Continued on Next Page.

Official Advertisements.

ST. PANCRAS PARISH.

CONTRACTS FOR PROVISIONS, CLOTHING, AND SUNDRIES.

THE Guardians of the Poor hereby give Notice that they are prepared to receive and consider proposals for the SUPPLY of the following ARTICLES to the Workhouse, Pancras Road and King's Road, N.W.; Infirmary, Dartmouth Park Hill, N.; Schools, Leavesden, King's Langley, Herts; St. Anne's Home, Streatham Hill, S.W., &c., during the following periods, viz.:—

FOR SIX MONTHS.

1. Ale and Porter.
2. Cheesemongery.
3. Cornchandlery.
4. Flour.
5. Grocery.
6. Greengrocery.
7. Horse Provender.
8. Meat.
9. Spirits.
10. Wine.

FOR TWELVE MONTHS.

11. Brushes and Brooms.
12. Drugs.
13. Eggs.
14. Fish.
15. Fire Hose.
16. Ice.
17. Indiarubber Goods.
18. Ironmongery.
19. Leather and Grindery.
20. Medical and Surgical Appliances.
21. Milk.
22. Oil and Colourman's Goods.
23. Officers' Uniforms.
24. Poultry.
25. Printing.
26. Stationery.
27. Soap.
28. Sweeping Chimneys at the Workhouse, Infirmary, &c.
29. Tea.
30. Tobacco and Snuff.
31. Timber.
32. Yellow Deal Ends for Firewood.

The Guardians are also prepared to receive proposals for the Purchase and removal of Rags, Bones, Old Copper, Old Iron, Old Lead, Hog-wash, Refuse, &c., from their several institutions.

All goods will be required to be supplied according to the Guardians' own samples, and such samples for all the establishments must be seen at the Workhouse, King's Road, N.W. (and also at other establishments where so stated in the form of tender), application being made to the Master, who will show the samples and give particulars as to delivery, &c.

A form of certificate as to the examination of the Guardians' samples as required above has to be signed by the person tendering (or his representative), and, in the absence of such certificate, the Guardians will decline to entertain the tender.

Persons tendering are requested not to send samples.

Tenders, forms of which may be had on application at this Office on and after the 4th March, and on which only proposals will be received, must be delivered to me, sealed and properly endorsed, before 10 a.m. on Wednesday, the 15th March, 1905.

Persons whose tenders have been accepted will be duly informed thereof.

The contract must be executed, and its covenants fulfilled by the person or firm whose tender has been accepted.

The Guardians do not bind themselves to accept the lowest or any tender, and they reserve to themselves the right to accept or to exclude such portion of any tender as they may think fit.

By order.
ALFRED A. MILLWARD,
Clerk.

Guardians' Offices,
Town Hall, Pancras Road, N.W.
21st February, 1905.

PARISH OF ST. GILES, CAMBERWELL.

CONTRACTS FOR SUPPLIES.

THE Guardians of the Poor of the Parish of St. Giles, Camberwell, hereby give Notice that they will, at a Meeting to be held on Wednesday, the 8th March, 1905, be prepared to receive TENDERS for the following, for the ensuing SIX MONTHS:—

Supplies to Workhouses, &c.: Cheesemongery, Margarine, Fish, Potatoes, Greengrocery, Meat (indoor), Meat (outdoor), Rice, Milk, Flour, Grocery, Moist Sugar, Loaf Sugar, Tobacco, Horse Hire, and

For the Supply of the following to the Central Home and Receiving House for Children and Scattered Homes within the parish, from Tradesmen resident in the neighbourhood of East Dulwich and Peckham Rye, viz.:—Fish, Meat, Milk, Cheesemongery, Grocery, Oilman's Goods, and Potatoes.

Persons desirous of tendering may obtain forms for the purpose, containing further particulars, upon application; and tenders must be delivered here, sealed, and addressed to the Board of Guardians, marked "Tender for ——," before 12 o'clock noon on Wednesday, 8th March, 1905.

The Guardians do not bind themselves to accept the lowest or any tender, and the contractors whose tenders are accepted will be required to pay the workmen employed by them such rate of wages and observe such hours of labour as are recognised by the several trade unions.

By order.
CHARLES S. STEVENS,
Clerk to the Guardians.

Guardians' Offices,
29, Peckham Road,
Camberwell, S.E.
22nd February, 1905.

HACKNEY UNION.

CONTRACTS FOR SUPPLIES.

NOTICE is hereby given, that the Board of Guardians will, on Monday, the 6th day of March, 1905, proceed to receive and open TENDERS for the SUPPLY of the undermentioned to their Workhouse and Children's Homes at Sidney Road, Homerton, N.E.; their Casual Wards at Gainsborough Road, Hackney Wick, N.E.; their Infirmary at High Street, Homerton, N.E.; their Schools at Brentwood, Essex: and their Children's Homes at Ongar, Essex.

For Six Months, from the 26th of March, 1905, to the 30th of September, 1905, viz.:—

Meat (English and Colonial): Lemons, Onions, and Potatoes; Mealman's Goods; Tea: Grocery; Cheesemongery; Flour and Cones; and Bread (Infirmary and Children's Homes only).

For Twelve Months, from the 26th of March, 1905, to the 31st of March, 1906, viz.:—

Oilman's Goods; Painter's Goods; Grindery; Officers' Uppers; Leather; Brooms and Brushes; Yeast; Milk; Eggs; Fish; Ice; Soap; Wine and Spirits; Elm Boards (Workhouse and Infirmary only); Funeral Conveyances (Workhouse and Infirmary only); and Linendrapery, Haberdashery, and Hosiery (Separate Tenders may be given for Linens, Cotton Goods, Corduroy and Moleskin, Lace, Muslins, &c., Costumes, Ladies' Underclothing, Millinery, Ribbons, &c., Collars and Cuffs, Hosiery, Haberdashery, Flannels, Blankets, &c., Shawls, Stuff Goods, Carpets, Upholstery, &c., Woollen Cloths, Hats and Caps. Miscellaneous Goods, and Shirts).

For Three Years, from the 26th of March, 1905, to the 28th of March, 1908, viz.:—

Earthenware.

Printed forms of tenders, containing full particulars, conditions, and estimates of quantities required, may be obtained on written application to me.

All labour in connection with work executed for the Guardians is to be in accordance with trade union conditions, and subject to trade union rate of wages.

Sealed tenders, endorsed with the name of the tender, must be delivered at my Office not later than 2 p.m. on Monday, the 6th day of March, 1905.

The Guardians do not bind themselves to accept the lowest or any tender.

By order.
FRANK R. COLES,
Clerk to the Guardians.

Clerk's Offices,
Hackney Union,
Homerton, N.E.

EDMONTON URBAN DISTRICT COUNCIL.

APPLICATIONS FOR POSTS OF TWO PAID FIREMEN.

THE Edmonton Urban District Council invite applications from experienced and suitable men for the above appointments. Wages 30s. per week.

Applications, with testimonials of recent date, to be delivered to me, the undersigned, not later than 12 o'clock noon on Wednesday, the 8th day of March next.

Particulars and information on the subject may be obtained from the Clerk to the Council, at the Town Hall.

Canvassing, directly or indirectly, will disqualify for appointment.

By order.
WM. FRANCIS PAYNE,
Clerk of the Council.

Town Hall, Edmonton.
21st February, 1905.

ST. PANCRAS BOROUGH COUNCIL.

TENDERS FOR SOAPS.

THE St. Pancras Borough Council invite TENDERS for the SUPPLY of SOAPS to the Public Baths for the year ending 31st March, 1906. Forms may be obtained of the undersigned, and must be returned properly filled up in envelopes endorsed "Tender for Soap," not later than 12 o'clock noon on Monday, 6th March, 1905.

C. H. F. BARRETT,
Town Clerk.

Town Hall, St. Pancras.

COUNTY OF LONDON.

FOURTH-CLASS CLERKSHIPS EXAMINATIONS.

THE London County Council hereby Gives Notice that an Examination under the new syllabus for FOURTH-CLASS CLERKSHIPS will be held as follows:—Part I., at 9.30 a.m., on 1st and 2nd May, 1905, at the Northampton Institute, St. John Street Road, Clerkenwell, and other centres in London; and Part II., on 29th May, 1905, and the five following days, at a centre in London which will in due course be announced to intending candidates.

Candidates must not be under 18 or over 23 years of age on 26th April, 1905. Each candidate sitting for Part I. of the examination will have to pay to the Cashier, at the County Hall, Spring Gardens, S.W., on 27th April, 1905, between the hours of 12 and 2, a fee of 10s., and candidates sitting for Part II. will be required to pay a fee of 10s. on 25th May, 1905, between the hours of 12 and 2. Candidates may send their fees for Parts I. and II. by post, but they must reach the Cashier, at the County Hall, Spring Gardens, S.W., not later than 10 a.m. on 27th April and 25th May, 1905, respectively.

Candidates who have passed or obtained the necessary certificates in any of the undermentioned examinations will be exempted from sitting for Part I. of the examination:—

(a) Any one of the following matriculation examinations:—The Universities of London, Liverpool, Birmingham, and Leeds, the Royal University of Ireland, the University of Wales, the Victoria University of Manchester, and Trinity College, Dublin.

(b) The Cambridge higher local examination.

(c) The Oxford, Cambridge, or the Durham local examinations for senior students.

(d) Oxford and Cambridge (Joint Board) Schools examination higher certificate.

(e) The leaving certificate given by the Scotch Education Department (provided a higher grade certificate has been obtained in three subjects); the preliminary examination in arts and science of the Joint Board of Examiners of the Scottish Universities; the school-leaving examination of the University of London; the certificate of the senior grade of the Irish Intermediate Education Board, and the senior certificate of the Central Welsh Board.

(f) Part I. of the Council's examination for fourth-class clorkships held on 2nd and 3rd June, and 31st October, and 1st November, 1904, and 16th and 17th January, 1905.

Candidates so exempted must at the time of paying the fee produce their certificates or other evidence of having passed the above-mentioned examinations. If the fee be sent by post the certificate must be forwarded therewith.

Forms of application and particulars of the appointments and the conditions under which they are held may be obtained either by applying personally or by sending a stamped addressed foolscap envelope to the Clerk of the Council, County Hall, Spring Gardens, S.W.

Candidates sitting for Part I. of the examination must send in their applications by 10 a.m. on 26th April, 1905; and in the case of candidates exempted from sitting from Part 1. the latest time for receiving applications will be 10 a.m. on 15th May, 1905.

G. L. GOMME,
Clerk of the London County Council.

County Hall,
Spring Gardens, S.W.
21st February, 1905.

ELECTROLIERS.—21 five-light Electroliers, from one of the most fashionable halls in London. French design. Offers to Q. E. D., MUNICIPAL JOURNAL Office, 12, Salisbury Square, London, E.C.

Official Advertisements.

GREENWICH UNION.

CONTRACTS.

THE Guardians will meet at the Board Room, Union House, Greenwich, on Wednesday, 15th March, at 2 o'clock p.m., to open TENDERS for PROVISIONS, CLOTHING, &c., for Six Months, commencing 26th March, 1905, viz. :—

Butcher (Indoor), Cheesemonger, Flour Factor, Grocer (Indoor), Mealman, Milkman, Potato Dealer, and Poulterer.

For Twelve Months, commencing 26th March, 1905, viz.:—

Brushmaker, Carriage Hire (for Conveyance of Lunatics to Asylums), Clothier, Coal Merchant, Earthenwareman, Fishmonger, Haberdasher, Hosier, Ironmonger, Leather Seller, Linendraper, Officers' Uniforms, Oilman, Printer, Scales Adjusting and Repairing, Shoemaker, Soap Maker, Stationer, Timber Merchant, Woollen Draper.

Samples may be seen on application at the Union House; and forms of tender are obtainable from the Clerk's Office, Union House, between the hours of 10 aud 4.

No tenders can be received other than those for which forms are provided.

The tenders must be sealed up and endorsed with the name of the trade on the cover, in the envelope supplied by the Guardians, and delivered at the Clerk's Office, Union House, on or before the 14th March, 1905, after which no tender can be received.

The Guardians do not bind themselves to accept the lowest or any tender.

The parties tendering need not attend the meeting.

By order.

SAMUEL SAW,
Clerk to the Guardians.

Greenwich, February, 1905.

WEST HAM UNION.

THE Guardians invite TENDERS for

(a) Installation of Electric Bells, Telephone, and Fire Alarms at the Mental Wards of their Infirmary, Whipps Cross Road, Leytonstone, N.E.; and

(b) Auxiliary Fire Hydrants, at the same Institution.

Specifications may be inspected on and after the 27th instant, at the Clerk's Office, at the Workhouse, between the hours of 10 a.m. and 4 p.m., where forms upon which the tender must be made, can be obtained.

Tenders, sealed and endorsed, must be sent to me, the undersigned, not later than 12 noon on Wednesday, 8th March, 1905.

The contractor whose contract is accepted, and with whom the contract is entered into, will be required to pay his workmen the trade union rate of wages current in the district.

The Guardians do not bind themselves to accept the lowest or any tender.

By order of the Board.

FRED. E. HILLEARY,
Clerk.

Clerk's Office,
Union Workhouse, Leytonstone, N.E.
22nd February, 1905.

WARD & MACONIE,

15, HANOVER STREET, LONDON, W.

Municipal Robe Makers and Court Tailors.

PRICE LIST ON APPLICATION.

LIGHTNING CONDUCTORS.

J. LEWIS,

5 and 6 Great Winchester Street, London, E.C.
TELEPHONE No. 3053 CENTRAL.

SUN FIRE OFFICE

HEAD OFFICE:
68, Threadneedle Street, London, E.C.

Branch Offices in London:
60, Charing Cross, S.W.
332, Oxford Street, W.
40, Chancery Lane, W.C.
4, Mincing Lane, E.C.

BIRMINGHAM .....10, BENNET'S HILL.
BRISTOL..... CORN STREET.
LEEDS.....SUN BUILDINGS, 15, PARK ROW.
LIVERPOOL.....SUN BUILDINGS, 6, CHAPEL-ST.
MANCHESTER..... 71, KING STREET.
NEWCASTLE..... 19, COLLINGWOOD STREET.
EDINBURGH.....40, PRINCES STREET
GLASGOW..... 42, RENFIELD STREET.
DUBLIN .....10, TRINITY STREET.

Funds in Hand, £2,535,800

DELICIOUS COFFEE.

RED WHITE & BLUE

For Breakfast & after Dinner.

In making, use LESS QUANTITY, it being so much stronger than ORDINARY COFFEE.

TO MUNICIPAL AUTHORITIES.

First-class Orchestras, Military Bands, and Concert Parties provided *at minimum rates* for every kind of function, or for Season.

J. HERBERT JAY,
10 & 11, Jermyn Street, Piccadilly.
Telephone—6534 Gerrard.

TO SUBSCRIBERS.

A New and Enlarged Series of THE MUNICIPAL JOURNAL will commence with our next issue. The paper will be enlarged to 36 pages, and the price increased to Twopence weekly.

Current subscriptions will run to the end of the period for which they were accepted, and will be renewable at the revised rate for the New Series as set forth below.

SUBSCRIPTION TERMS

FOR THE UNITED KINGDOM.
Post free.

Three Months	2s. 5d.
Six Months	4s. 9d.
Twelve Months	9s. 6d.

ABROAD.

Six Months	6s. 6d.
Twelve Months.	13s. 0d.

Cheques and Postal Orders to be made payable to EDWARD LLOYD, Limited, 12, Salisbury-square, London, E.C., and crossed "London and Westminster Bank."

An admirable Food of the
EPPS'S
Finest quality and flavour.
COCOA
Nutritious and Economical.

MUNICIPAL JOURNAL
FRIDAY, FEBRUARY 24, 1905.

NOTES AND COMMENTS.

The Bankers' Retaliation.

THE action of the National Provincial Bank of England in raising the rates for municipal loans at Middlesbrough has been followed by similar reprisals at Edinburgh, and we understand that the banks generally have decided to retaliate against those corporations which have established what are popularly known as "Municipal Savings Banks." The Edinburgh Corporation having offered ½ per cent. more interest to depositors than is given by the banks, the latter have decided to fix a minimum charge of 4 per cent. for short loans granted to the Corporation, 1 per cent. above the Bank of England rate. This, then, is the reply of the bankers to the move of the corporations which followed the threat of the financiers to cut off supplies if less municipal trading were not indulged in. The bankers have by this time found cause to regret their action. They were led away by the violent attacks of directors who were interested in the failure of municipal industrial enterprises—enterprises whose substantial position was never more completely demonstrated than it has been this week by the new Board of Trade returns relating to gas and tramway undertakings.

The Telephones "Deal."

WHEN a few weeks ago the Postmaster-General (Lord Stanley) took considerable pains to deny that an agreement for the purchase of the undertaking of the National Telephone Company had been arrived at, we commented upon the ambiguous terms of that denial and advised our readers to expect an agreement as soon as Parliament assembled. The terms of the transfer are much better than we expected. There is to be no payment for "goodwill," and if the Post Office exercises the discretionary powers with which it is endowed by the agreement, it need not buy plant that is obsolete and useless when the lease expires in 1911. From the standpoint of those corporations which have established systems, however, there are a great many interests to be safeguarded; for, as Mr. Bennett points out in an article appearing in another column, the existence of municipal telephone exchanges is to all intents and purposes ignored throughout the agreement. Whilst every precaution is taken to protect the Post Office system during the interval that will elapse between the time the arrangement comes into force and the expiration of the licence in 1911, the company is placed in a position which will enable it to attack municipal telephones with the financial assistance of the Post Office itself. We think that a deputation representing the Corporations should wait upon the Postmaster-General without delay and attempt to discover his intentions towards them.

Motor 'Buses Versus Tramways.

APROPOS our notes of last week on this subject, Mr. J. Allen Baker, the chairman of the Highways Committee of the London County Council, stated at this week's meeting that the working cost of a motor omnibus, with a carrying capacity of thirty-four passengers, was between 11½d. and 1s. per car mile. The working cost of the electric tramway was between 5d. and 6d. per car mile, and the cars had a carrying capacity of between fifty and seventy passengers. "This margin," commented Mr. Baker, "more than balanced the extra capital expenditure." Mr. Baker's statement is borne out by the report for twelve months' working of two double-deck motor 'buses at Hastings, showing a total mileage of 55,000. The operating costs have been stated to be 11½d. per 'bus mile, made up as follows:—

General repairs and tyres ...	3½d.
Wages, washing, &c.	2½d.
Fuel, lubrication, and lighting ...	2d.
Rent, taxes, water, gas, inspector, foreman, directors' fees, legal expenses, insurance, and 20 per cent. depreciation	3½d.
Total	11½d.

Thus it will be seen that the Wolverhampton estimate, which we published last week, is much too low, even though the carrying capacity of the two systems be assumed as equal. We hope local authorities will not be carried away by the "scare" articles that are now appearing in newspapers all over the country in favour of the motor 'bus. The general concensus of expert opinion is that, although motor 'buses can become valuable traffic-feeding and supplementary adjuncts to tramways they can never displace the latter in the admirable work they are doing for the public.

A Curious Movement.

IT is interesting to recall how this curious movement in favour of the motor 'bus and against the electric tramway originated. First, there were the complaints of railway directors that the successes of the tramways were curtailing their traffic receipts. Then many of these same railway companies promoted Bills, which are due for discussion in the present session of Parliament, proposing to establish 'bus enterprises between various termini. In many cases these 'buses will compete with existing tramways, and the authorities interested have wisely determined to oppose them. Then the London City Corporation, anxious to discover a pretext for thwarting the scheme of the County Council for a tramway over Blackfriars Bridge, warmly advocated motor 'buses against the tramways, and there are rumours that several companies are to be floated for the purpose of exploiting the City traffic, which properly belongs to the County Council. It is significant, too, that the London agitation for motor 'buses finds its most fervent supporters amongst persons interested in the manufacture and sale of these vehicles, and amongst those members of the reactionary party on the County Council who violently opposed the municipal operation of tramways. In South Shields, where the supporters of municipal enterprise last year scored a signal victory over the Trust, the "anti-traders" are enthusiastic for 'buses. So is the Birmingham association which was responsible for a large share of the movement against Corporation tramways in that city. Judge a movement by the men who support it; and when we recollect that this motor 'bus agitation was started by railway directors fearful of the effect of electric tramways upon their revenues, by gentlemen anxious to get a market for motor 'buses, and by the "anti-traders" who have always opposed municipal tramways and have done their best to make them failures, many things that were hitherto obscure become glaringly obvious. The motor omnibus takes its proper place among methods of locomotion if it is considered in relation to electric tramways as the horse 'bus was regarded in relation to the horse tramways.

"Municipal Wiring."

VERY angry with the London County Council is the Electrical Contractors' Association because powers are to be asked for in the present session of Parliament enabling borough councils to borrow money for the purposes of wiring and fitting premises. Many of the speakers at the recent meeting seemed to imagine that the work is to be paid for out of the rates, but we assure these gentlemen that they are entirely wrong. The borough councils do not want to levy rates for wiring and fitting premises with a view to the supply of municipal electricity. All the councils desire to do is to be able to adapt houses for electricity in the same way that the South Metropolitan Gas Company adapts them for gas. The work will be paid for by the people it benefits, and as a house is not a public place the money will be paid by the consumer and not by the general body of ratepayers. Mr. Tweedie Smith, the honorary solicitor to the association, laid down the principle that "only those things which affected the general welfare of the public and which were not being efficiently performed by private enterprise were, in his opinion, within the legitimate sphere in which a municipality should ask for powers to trade." We do not think Mr. Tweedie Smith will contest the contention that electricity supply affects "the general welfare of the public." If he did, he would scarcely occupy a prominent position in an association whose members derive their livelihood from distributing electricity. The point he seeks to make is doubtless that wiring and fitting are already efficiently performed by private enterprise. Let us see, from the report of his own meeting, how far his claim is supported by the facts:—

> One speaker thought that the London County Council had a good prospect of being allowed the powers in question, inasmuch as they would permit of wiring being done on the hire-purchase principle, from some points of view a desirable and beneficial proceeding. Could not the contractors combine to practise such methods?
>
> The reply was immediately forthcoming, however, that the capital available would not permit of this, and that already a company which had been started with this object in view had had to abandon the "free" wiring portion of its business.

A public service is most efficiently administered when its accessibility is greatest. In other words, it should be made as easy as possible for people who want electricity to get it. The Electrical Contractors' Association says it cannot make it as easy as possible because its members are unable to raise the capital. Surely, in face of this condition of affairs, private enterprise in regard to wiring and fitting cannot be said to "efficiently perform," its duty to the public?

Official Advertisements.

COUNTY BOROUGH OF NORTHAMPTON.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

THE Corporation invite Applications for the Appointment of SECOND ENGINEERING ASSISTANT in the Borough Engineer and Surveyor's Office at a commencing salary of £100 per annum, rising by annual increments of £10 per annum to a maximum of £130 per annum.

Candidates must have had good general experience in Municipal and Sanitary Engineering.

Preference will be given to candidates between the ages of 24 and 28 years.

Applications, stating age and qualifications, in candidates' own handwriting, accompanied by copies of not more than three recent testimonials, must be endorsed "Second Engineering Assistant," and delivered at the Borough Engineer's Office not later than noon on Tuesday, the 28th instant.

Canvassing directly or indirectly will disqualify.

HERBERT HANKINSON,
Town Clerk.

Guildhall, Northampton,
13th February, 1905.

POPLAR AND STEPNEY SICK ASYLUM DISTRICT.

CONTRACT FOR SUPPLIES, &c.

THE Managers of the above District give Notice that they will meet at the Asylum at Bromley, London, E., on Tuesday, the 14th day of March, 1905, to receive and open TENDERS from persons willing to supply ARTICLES to be furnished by the following Tradesmen, for the use of their Asylum at Devons Road, Bromley, London, E., and also for the Branch Asylum at Blackwall, from the 26th March next, for the following periods, viz.:—

For SIX MONTHS:—Baker, Butcher, Beef Tea and Meat Extracts, Fishmonger, Potato Salesman, Butter, Cheesemongery and Egg Merchant, Grocer, Mealman, Brewer, and Milkman.

For TWELVE MONTHS:—Poulterer, Acrated Water Manufacturer, House Coal, Steam Coal, Coke Merchant, Soapmaker, Oilman, Brushmaker, Earthenwaremen, Cutler and Tinman, Ironmonger, Timber Merchant, Building Material, Merchant, Plumbers' Material Merchant, Porters' Uniforms Contractor, Boot and Shoe Maker, Slopseller, Outfitter and Clothier, Linendraper, Waterproof Goods Manufacturer, Printer of Minutes, Stationer, Methylated Spirit Distiller, Drug Manufacturer, Undertaker, Laundry Work Contractor, and Hairdresser.

Tenders will also be received at the same time from persons willing to contract for the PURCHASE of KITCHEN REFUSE and RAGS, &c., for twelve months from 26th March, 1905, and applications and prices will also be considered from local tradesmen who are desirous of being appointed to SUPPLY GOODS out of Contract and to execute the various Engineering and other Jobbing Work of the two Institutions.

Printed forms of tender, which alone can be received, and which will contain an estimate of the quantities required and the directions to be observed by the parties tendering, may be obtained at my Office at the Asylum, daily, between the hours of 10 a.m. and 4 p.m. (Saturdays 10 a.m. and 1 p.m.), or will be sent by post upon receipt of a stamped addressed foolscap envelope; and the same must be returned to me not later than 10 a.m. on Tuesday, the 14th March, 1905.

Parties whose tenders are accepted will be informed thereof by letter.

The Managers do not bind themselves to accept the lowest or any tender.

By order.
WALTER R. FOSKETT,
Clerk to the Managers.

Clerk's Offices,
Bromley-by-Bow, E.
February, 1905.

AGENTS REQUIRED in unrepresented districts for the Imperial Accident, Live Stock, and General Insurance Co., Ltd. Estd. 1878. Departments: — Personal Accidents, Carriage and Drivers' Accidents, Horse and Cattle Insurance. Claims paid £300,000. Address Mr. B. S. Essex, Manager, 17, Pall Mall East, London, S.W.

POOR LAW OUTLOOK.

The Central Poor Law Conference and its Attitude to the Problem of the Unemployed. Two Different Schools of Thought as Represented by Mr. F. H. Bentham and Mr. George Lansbury. Poor Law Little or No Effect on the "Causes" of Poverty. Should its Scope be Extended? The Question of Franchise.

The Central Poor Law Conference.

MORE than usual interest was manifested at the opening of the Central Poor Law Conference, 1905, in the Council Chamber of the Guildhall, London, on Tuesday, and it was no surprise to one who has long attended this Poor Law Parliament to learn later from the chairman (Sir Francis Powell) that it was a record meeting. There were present—many sitting in the gangways of the Council Chamber—495 persons, of whom 460 were guardians, representing 222 Poor Law unions. Sir Edward Fry was prevented from taking the chair at the conference, as was expected, owing to the prolongation of the Baltic Sea inquiry. The Lord Mayor (Alderman John Pound) in the usual address of welcome, showed that he felt the present agitation of the Poor Law world, and referred to the Bill which the Government is about to introduce to make permanent provision for dealing with the unemployed. The chairman, in his opening remarks, alluded to the establishment in several unions of cottage homes, which were "a solace to those who deserve a solace, and a comfort to those who need comfort," and to the fact that steps were being taken with great success to get the children out of our workhouses.

❦ ❦ ❦

Elements of Interest.

NO wonder the attendance at the conference was so large. Apart from the fact that during the present winter much has been heard and thought of the problems of the poor, keen interest was aroused in the two papers which were to form the subject of the day's discussion The subject was "The Position of the Poor Law in the Problem of Poverty"—and the men, Mr. F. H. Bentham and Mr. George Lansbury. Here were two almost opposite schools of thought represented. Mr. Bentham, the well-tried and able chairman of the Bradford Board of Guardians, the head of the union which has done so much to put stiffening into our English system of Poor Law administration; and Mr. Lansbury, councillor and guardian, and chairman of the Farms Committee of the Poplar Board of Guardians, a body severely criticised by the *Times* for making out-relief too easy, but a Board which has started and is working with distinct success the first Poor Law labour colony in England. It might have been thought that Mr. Lansbury's paper, which followed that of Mr. Bentham, was a reply to it, but the writer carefully explained that he had not seen Mr. Bentham's paper until after he had finished his own.

❦ ❦ ❦

Electrifying the Conference.

THE effect of the two papers on what the chairman repeatedly called "this great meeting" was markedly different. Mr. Bentham's able crystallisation of his long experience, succinctly expressed, was listened to in a hushed silence, occasionally broken by a cheer, while Mr. Lansbury soon had the meeting almost to its feet, amid cries and counter cries, the "Hear, hear" of approval, and the "No, no" of dissent. But the fundamental difference was in their outlook. Mr. Bentham dealt with things as they are, and Mr. Lansbury with things as they ought to be. If it were possible to criticise so able a paper as Mr. Lansbury's, it would be to show that the Poor Law, as it exists at present, does not deal with the causes, but with the effects of poverty. That to us seems to account for the fact that two such conscientious and able men are at so great variance.

❦ ❦ ❦

The Only Deterrent.

PARLIAMENT can do much in the way of changing the land laws, checking the evil effects of the displacement of industries, &c., but Mr. Bentham looks upon the problem for the Poor Law reformer as that of making the greatest possible number of persons independent self-supporting individuals, living under healthy and sanitary conditions. He plainly told his hearers:—

> For poverty which is due to wasteful expenditure and drink, Poor Law can do nothing at present, except in a repressive and deterrent way. Such people should be discouraged from resorting in every time of need to Poor Law for relief, and the only way in which Poor Law authorities can discourage them is by refusing to help them out of their difficulties, excepting under conditions which will make it impossible to continue the same mode of life at the public expense. Indoor relief is the only method which will ensure this.

If this be admitted—and its truth is becoming more and more recognised—the attitude of unions like Bradford is fully justified, notwithstanding that hard names such as "fiendish" have been applied to its regulations from uninformed quarters.

❦ ❦ ❦

Joint Committees—not State Action.

MR. BENTHAM'S attitude to labour colonies, such as Poplar started some six months ago, was not enthusiastic; and as to the desirability of the State being responsible for finding honourable employment for every man, Mr. Bentham does not believe it practicable. He favours the formation of joint committees by guardians, consisting of representatives of local authorities, charitable agencies, and other

By Royal Warrant to His Majesty the KING.

BOVRIL

Saves Money to the Treasurer;
Time and Trouble to the Staff.

Include BOVRIL in your form of tender.
Over 1,500 British Hospitals, Infirmaries, &c., use BOVRIL daily.

BOVRIL Limited, Food Specialists, 152/166, Old Street, London, E.C.

representative bodies. The chief objects would be the co-ordination of public charities, the co-operation of local authorities for dealing with the unemployed in times of exceptional distress, and the keeping of labour registers.

❦ ❦ ❦

SOME very strong remarks were made by Mr. George Lansbury in his paper. He went so far as to say that the Poor Law has had not an elevating, but a degrading effect on men and women. The past 20 years, he said, had shown some improvement, but over all workhouses and nearly all infirmaries he would still be inclined to put up the words, "Abandon Hope all ye who enter here." Why is this so? It is because, according to Mr. Lansbury, since the great reform of the Poor Law in 1834 public opinion in England has steadily maintained that any person who, in whatever circumstances, may receive help from the Poor Law, shall not be recognised as a *citizen*. The result has been "the creation of a huge pauper class, not born as such, but created such by society and its laws."

A "Created" Pauper.

❦ ❦ ❦

THE organisation of work for those who need it is certainly the one step needed before all others in providing for the unemployed. Mr. Lansbury on this point is in agreement with Mr. Bentham. He expressed himself as glad to know that public opinion had at last recognised that it was someone's business to try to organise work for the unemployed. But Mr. Lansbury went a good deal further than this. Sometimes it is argued that when work is provided some men won't work. "I am quite prepared," he said, to adopt the principle that he who won't work neither shall he eat ——." At this point the applause from the guardians, possibly at the thought that after all Mr. Bentham and Mr. Lansbury were at one on this great fundamental point, checked the speech and made the sentence appear as though it had ended at these words. One interruptor raised a loud laugh by crying out, "What do you want to do with them?" But Mr. Lansbury had not finished. "—— so soon," continued Mr. Lansbury, "as society will apply it to the well-to-do loafer as well as the man at the lower end of the social scale." By all means, we have often pointed out in these pages, let a man starve if he won't work, but first be quite sure that he could work if he would.

"Work or Starve."

❦ ❦ ❦

IT would be very difficult to sum up Mr. Lansbury's position in a sentence. He holds it to be the duty and business of boards of guardians to deal with the problem of poverty in *all* its varied phases, and he takes no account of charitable effort. It is true that the present financial position of the London hospitals, the failure of charity to deal with the unemployed question, the aged poor, and orphaned children, speak of its great limitations:—

The Place of Private Charity.

> In the old days, when millionaires did not exist, some attempt was made by almshouses, &c., to deal with parts of the problem; but these are all past and gone, and whatever changes the future may have in store, it will be on the lines of more State and municipal organisation rather than less.

Mr. Lansbury did not assure the ratepayer that it is in this very direction that he has to look for relief. But it is true that the more duties put on the State or the municipalities the sooner will come that reform of taxation which is a crying need of the time.

❦ ❦ ❦

THESE remarks and many other alluding to the "miserable failure" of the Poor Law and of charitable effort aroused extraordinary opposition cries. He declared himself unable to see the difference in principle between "a good fat pension for an ex-Cabinet Minister out of public funds and a poor old man getting outdoor relief from the rates." He splendidly vindicated the claim of labour colonies, for his Board's experience had shown distinctly that work in the fields puts new life and vigour into men, and made them long to get out into the ordinary walks of life again. It was plain to see that the paper made a great impression on the conference, as was abundantly proved in the lengthy discussion which followed its reading. As it proceeded, the interruptions became less numerous, and rousing applause marked the finish. As we have already suggested, Mr. Lansbury seems to regard guardians as being responsible for the causes of poverty. It is perfectly true, as Ruskin has said, that a few are rich and many are poor, but this is no fault of the Poor Law system. That the system ought to be altered is quite arguable, and such movements as that on the Elberfeld plan are significant of change. The conference was resumed on Wednesday, when Dr. J. Milsom Rhodes (chairman of the Chorlton and Manchester Asylums Board) presided. Mr. A. F. Vulliamy (Ipswich) read a paper on "The Treatment of Vagrants," and Dr. Rhodes—who temporarily left the chair—on "The Treatment of the Mentally Defective under the Poor Law."

Guardians not Responsible.

❦ ❦ ❦

IN the subsequent discussion, which was more than usually animated, the paper read by Mr. Lansbury was much criticised. Sir William Chance, Bart., who is hon. secretary of the conference, and is author of "Our Treatment of the Poor," and other works, said that in Poplar, where pauperism and the expenditure on pauper relief were rising at an alarming rate, charitable work had been driven out by the action of the guardians.

Words about Poplar.

❦ ❦ ❦

THE Central Committee of Poor Law Conferences, at its meeting at the Hotel Cecil, on Monday, elected Dr. J. Milson Rhodes (Chorlton, Manchester) as chairman of the committee, in succession to the late Captain B. T. Griffith-Boscawen. We are asked to state that an article detached from a chatelaine was found at the conference, and the owner is requested to apply, describing it, to Mr. W. C. Lewis, 8, Wells Street, Gray's Inn Road, London, W.C.

Dr. Rhodes, New Chairman of Committee.

The ST. PANCRAS IRONWORK CO. LTD.

FIRE ESCAPE STAIRCASES

STRAIGHT & CIRCULAR IRON STAIRCASES

LIGHT IRONWORK

in all its departments has for many years received the constant consideration and careful study of Experts on our Staff. We are therefore in a position to plan and execute trustworthy work of this description with despatch and accuracy.

Catalogues sent on application.

171 ST. PANCRAS RD. LONDON N.W.

Telephone—No. 519 King's Cross. *Telegrams—"Equitation," London.*

DIALITE

THE STANDARD CABLE FOR ALL PURPOSES.

THE ST. HELENS CABLE CO., Ltd., WARRINGTON.

Official Advertisements.

METROPOLITAN BOROUGH OF ST. MARYLEBONE.

CONTRACTS.

NOTICE is hereby Given that the Council of the Metropolitan Borough of St. Marylebone, in the County of London, are prepared to receive TENDERS from persons willing to contract for the following WORKS and MATERIALS for One Year, commencing April 1, 1905 :—

Removal of Street Slop (North and Middle Districts), Horses, Harness, and Drivers for Street Watering (South District), Horses, Harness, and Drivers for Night Washing and Sweeping Machines.
Cement.
Lime and Bricks.
Supply and Repair of Harness.
Broken Granite.
Footway Kerb.
Yorkshire Paving.
Thames Ballast and Sand.
Ironwork for Sewers, and Iron Castings.
Tools and Ironmongery.
Plumbers' Work and Materials.
Bass Brooms.
Glazed Stoneware Sewer Pipes.
Pit Flints, Gravel, and Hoggin.
Repairs to Carts, Trucks, and Barrows.
Writing Street Names.
Chandlery.
Oils.
Wood Blocks for Repairs.
Uniforms and Clothing.
Hats.
Veterinary Care.
Brushes, Brooms, &c. (Baths).
Chandlery (Baths).
Engineers'Requirements, Oils, &c. (Baths).
Coal and Coke.
Horse Fodder for Six Months, commencing April 1, 1905.

All tenders to be sealed and delivered to the undersigned at the Town Hall, Marylebone Lane, Oxford Street, W., endorsed "Tender for ——," by or before 11 o'clock in the forenoon of Monday, March 13, 1905.

Tenders to be made upon and strictly in accordance with the printed forms of tender. Further particulars and forms of tender may be obtained on application at the Town Hall from 10 until 4 o'clock daily (Saturdays excepted).

In certain cases samples will be required with the tender.

Satisfactory security (if required) to be given for the performance of the contracts.

The Council will not be bound to accept the lowest or any tender.

By order.
JAMES WILSON,
Town Clerk.

Town Hall,
St. Marylebone, W.
February, 1905.

ST. GEORGE'S UNION, LONDON.

CONTRACTS FOR PROVISIONS, CLOTHING, &c.

THE Guardians desire to receive TENDERS for supplying their Infirmary and Workhouse in the Fulham Road, West Brompton, their Workhouse in Buckingham Palace Road, and their Receiving Home for Children in Milman's Street, Chelsea, during the six months ending the 31st September next, with the following GOODS, viz. :—

Butchers' Meat, Poultry, Flour, Grocery, Tea, Cheesemongery, Eggs, Fruit and Vegetables, Milk, Tobacco and Snuff, Oilman's Goods, and Coals.

Also Tenders for One Year, ending March 31, 1906, for the SUPPLY of the following GOODS, viz. :—

Cotton and Woollen Clothing and Hosiery, Haberdashery, Boys' and Men's Clothing, Officers' Uniforms, Waterproof Goods, Brushes and Brooms, Boots, Shoes, Leather, Earthenware and Glass, Ironmongery, Tinware, and Drugs.

Tenders will also be received for Cleaning Windows at the Infirmary and Receiving Home for Children.

Forms, upon which the tenders are to be made, can be obtained upon personal application at my offices, or by forwarding to me a stamped addressed foolscap envelope.

Samples of the various articles required may be seen on application to Mr. Elkerton, the Master of the Fulham Road Workhouse, between the hours of 10 a.m. and 12 a.m. noon, any day except Saturday or Sunday.

Tenders must be delivered to me sealed, and properly endorsed, before 9 a.m. on Wednesday, the 8th March, the day on which they will be opened.

The Guardians do not bind themselves to accept the lowest or any tender.

THOMAS WORLOCK,
Clerk to the Guardians.

St. George's (Hanover Square) Hall,
Mount Street, London, W.
February 23, 1905.

PARISH OF HAMMERSMITH.

CONTRACTS FOR SUPPLIES.

NOTICE is hereby Given that the Guardians of the Poor of the above-named parish are prepared to receive TENDERS for the following SUPPLIES, for periods of Six Months and Twelve Months respectively, viz. :—

SIX MONTHS.

1. Meat.
2. Grocery.
3. Milk.
4. Cheesemongery, &c.
5. Greengrocery.
6. Bread.
7. Fish.
8. Coal and Coke.
9. Oilman's Goods.
10. Laundry Work.

TWELVE MONTHS.

1. Printing Work.
2. Undertaker's Work.
3. Jobmaster's Work.

Forms of tender and contract, containing full particulars as to conditions and estimates, may be obtained on personal application at my Office, or by forwarding to me a stamped addressed foolscap envelope.

Tenders, properly endorsed, must be delivered at my Office not later than 4 o'clock in the afternoon of Tuesday, the 21st day of March proximo.

The Guardians do not bind themselves to accept the lowest or any tender.

By order.
J. LAMB,
Clerk to the Guardians.

Guardians' Offices,
206, Goldhawk Road.
Shepherd's Bush, W.
22nd February, 1905.

BOROUGH OF LEWISHAM.

PUBLIC HEALTH (LONDON) ACT, 1891, AND SANITARY OFFICERS' (LONDON) ORDER, 1891.

APPOINTMENT OF A WOMAN SANITARY INSPECTOR.

THE Council is prepared to receive applications from duly qualified persons for the appointment of a WOMAN SANITARY INSPECTOR, for a period of twelve months, at a salary of £100 per annum. Upon a satisfactory performance of the duties, a permanent appointment will be made, and the salary will be raised by annual increments of £5 to a maximum of £120.

The person appointed will be required to reside in the Borough, to devote her whole time to the duties of the office, to submit to a medical examination, and must not be more than 35 years of age.

Candidates must hold the certificate of competency in sanitary knowledge granted by the Sanitary Inspectors' Examination Board, or prior to the 31st December, 1898, by the Sanitary Institute.

The appointment will be subject to the approval of the Local Government Board, and in accordance with the Sanitary Officers' (London) Order, 1891, and will also be subject to the Resolutions and Order of the Council relating to officers.

There will be no compensation or superannuation on retirement or loss of office.

Applications, accompanied by not more than three testimonials, must be made in candidates' own handwriting, on forms to be obtained at these Offices, and delivered here not later than Wednesday, the 15th March, 1905.

The appointment will be made at the Council Meeting on the 29th March, 1905, or at an adjournment of such meeting.

Canvassing is prohibited.

By order.
EDWD. WRIGHT,
Town Clerk.

Town Hall, Catford, S.E.
22nd February, 1905.

LEWISHAM UNION.

CONTRACTS FOR PROVISIONS, &c.

THE Guardians of the Lewisham Union will meet on Monday, March 13th, 1905, at 11 a.m., to receive and open TENDERS from persons of the undermentioned trades for SUPPLYING such GOODS and executing such WORK as may be ordered by the Guardians during the year (except where otherwise stated), commencing on the 26th March next :—

Miller (six months only)	Ironmonger
Butcher.	Jobmaster (Local tradesmen only).
Cheesemonger.	Coal Merchant.
Egg Merchant (six months only).	Coke Merchant.
Grocer.	Tobacconist.
Dairyman.	Linendraper.
Fishmonger.	Hosier.
Ice Merchant.	Haberdasher.
Poulterer.	Clothier.
Mealman.	Bootmaker.
Tea Merchant.	Earthenwareman.
Potato Merchant (three months only).	Timber Merchant (six months only).
Greengrocer and Fruiterer (Six months only).	Indiarubber Manufacturer.
Chandler and Oilman.	Corn Merchant—Horse Fodder (Six months only).
Soap Manufacturer.	Printer.
Brush Manufacturer.	Stationer.
Oil and Colour Merchant.	Publisher of Local Government Books and Forms.
Undertaker.	
Chimney Cleaner.	

The forms of tender, containing full particulars and conditions of contract, and (where practicable) estimates of the quantities required, may be obtained at the Union Offices. No other form of tender will be received.

Articles tendered for must (except where otherwise stated) be according to samples, which may be seen at the Workhouse and Infirmary on any week day, except Saturdays, between the hours of 10 a.m. and 4 p.m.

Tenders must be signed and attested, and the envelopes containing the same duly sealed and endorsed with the name of the trade tendered for, and delivered to me not later than 9 a.m. on the said 13th March.

Each contractor must be prepared, if required, to enter into a bond, with two sureties, for the due performance of the contract.

The Guardians do not bind themselves to accept the lowest or any tender.

By order.
H. C. MOTT,
Clerk to the Guardians.

Union Offices,
286, High Street, Lewisham, S.E.
20th February, 1905.

A FEW OPINIONS OF THE

NEW ISSUE OF THE

MUNICIPAL YEAR BOOK.

Pall Mall Gazette.—"It would be hard to mention a subject of public activity and inquiry or a borough of note not dealt with in this volume of six hundred pages of veracity for three-and-six."

Globe.—"The MUNICIPAL YEAR BOOK has grown into a volume as portly as it is unquestionably valuable. The general arrangement remains the same, and the double index is a great facility for handy reference. The whole field of municipal enterprise and its associations is covered in a comprehensive way by the 'Year Book.'"

Daily Mail.—"It is a wonderful volume of facts and figures of the greatest possible interest, and quite indispensable to all who would be familiar with municipal development all over the kingdom. Mr. Robert Donald may congratulate himself upon having given his book a permanent place, and upon the care and skill with which it is produced."

Official Advertisements.

HESTON AND ISLEWORTH URBAN DISTRICT LIBRARIES COMMITTEE.

ASSISTANT LIBRARIAN.

REQUIRED immediately, an ASSISTANT LIBRARIAN. Applications will be considered only from candidates not under 20 years of age, who have had good all-round experience in public library work, and are well educated.

Salary £75 per annum. Applications, stating full particulars, and accompanied with copies of not more than three testimonials, to be sent in by Feb. 27th to the Librarian, Public Library, Hounslow, W.

PARISH OF SAINT MARY, ISLINGTON.

CONTRACTS.

THE Guardians of the Parish of St. Mary, Islington, invite TENDERS for the SUPPLY of the undermentioned ARTICLES, for Six Months and Twelve Months respectively, commencing March 26, 1905, to be delivered in such quantities as and when required at the St. John's Road Workhouse, the Cornwallis Road Workhouse, the Highgate Hill Infirmary, and the Guardians' School, Hornsey Road, viz.:

FOR SIX MONTHS.

Flour and Cones.	Eggs.
Meat.	Milk.
Cheesemongery.	Grocery.
Margarine.	Extract of Meat.
Potatoes and other Vegetables.	Forage.

FOR TWELVE MONTHS.

Peas, Oatmeal, &c.	Furnishing Ironmongery.
Soap and Candles.	General Ironmongery.
Oilman's Goods.	Electrical Requirements.
Shoes and Boots.	Engineers' Work, &c.
Leather, &c.	Painters' Colours, &c.
Linen and Woollen Drapery.	Earthenware.
Haberdashery and Hosiery.	Tobacco.
Clothing.	Wine and Brandy.
Coffins.	For the Performance of Funerals.
Brooms, Brushes, Combs, &c.	

Sealed tenders must be delivered at the undermentioned Offices on or before Tuesday, March 7. 1905, addressed to the Guardians, and endorsed "Tender for ——."

The tenders will be opened at a meeting of the Guardians to be held on Thursday, March 9, at half-past two o'clock in the afternoon, at the undermentioned offices. The Guardians do not bind themselves to accept the lowest or any tender.

Payment will be made monthly for flour, meat, cheesemongery, and milk.

Printed forms of tender (with conditions of contract and estimated quantities) must be obtained from the Clerk personally, or a stamped addressed foolscap envelope may be sent, as no others will be received.

By order. EDWIN DAVEY,
Guardians' Offices, Clerk.
St. John's Road, Upper Holloway, N.
9th February, 1905.

THE METROPOLITAN BOROUGH OF HACKNEY.

EXECUTION OF WORKS AND SUPPLY OF MATERIALS.

TENDERS are invited by the Borough Council for the EXECUTION of WORKS and the SUPPLY and DELIVERY of MATERIALS from the 1st April, 1905, as follows:—

1. Sewer and Drain Work.
2. Horsing and Working of the Council's Road Sweeping Machines.
3. Plumbers' Work.
4. Concrete Paving Works and Repairs.
5. Artificial Stone Paving.

Also for the Supply and Delivery of Materials as follows:—

6. Granite Spalls and Broken Granite.
7. Flints, Ballast, Hoggin, Shingle, and Kentish Ragstone.
8. Drain pipes, &c.
9. Timber, &c.
10. Portland Cement and Lime.
11. Road Scavengers' Brooms and Broom Handles; also Brooms for Sweeping Machines.

Specifications, forms of tender, and other particulars may be obtained on application at the Offices of the Borough Engineer and Surveyor, Mr. Norman Scorgie, M.Inst.C.E., Town Hall, Hackney, N.E.

The contractors whose tenders may be accepted will be required to pay wages at rates not less, and to observe hours of labour not greater, than the rates and hours recognised by the respective trade unions and in practice obtained in the district, such rates and hours to be those in force at the date of the acceptance of the tender or tenders.

Each tender must be made up separately, and enclosed in an envelope, endorsed on the outside, "Tender for ——" (as the case may be), and all tenders must be delivered at the Town Hall, Hackney, N.E., not later than 5 p.m. on Thursday, the 9th March, 1905.

The Council does not bind itself to accept the lowest or any tender.

By order W. A. WILLIAMS,
Town Hall, Hackney, N.E. Town Clerk.
22nd February, 1905.

WHITECHAPEL UNION.

CONTRACTS.

THE Guardians of the above Union will at their meeting to be held at the Board Room, Vallance Road, Whitechapel, on Tuesday, the 7th day of March, 1905, receive TENDERS for the SUPPLY of Flour, Grocery, Cheesemongery, Meat, Fish, Meal, Greengrocery, House and Steam Coal, Soap, Oilman's Goods, Brushes, Leather, Shoes, Haberdashery, Hosiery, Linen and Woollen Drapery, and Tailoring, for Six Months, from the 27th day of March next.

Printed forms of tender, with the terms and conditions of contract, may be obtained upon application to me; and all tenders must be made upon such printed forms, and delivered at my Office before 2.45 o'clock in the afternoon of the said 7th day of March, 1905.

The Guardians do not bind themselves to accept the lowest or any tender.

By order of the Board.
F. J. TOOTELL, Clerk.
Union Offices, Vallance Road, N.E.
14th February, 1905.

In Use in over 100 CENTRAL and POWER STATIONS,
AND MANY THOUSAND PRIVATE INSTALLATIONS.

E. P. S. STORAGE BATTERIES

ARE MANUFACTURED ONLY BY THE

ELECTRICAL POWER STORAGE CO.,
4, GREAT WINCHESTER ST., LONDON, E.C.
Telegrams—"STORAGE," LONDON. Telephone—No. 1253, London Wall.

PEARL LIFE ASSURANCE COMPANY, Ltd.

ANNUAL REPORT for the Year ending December 31st, 1904, presented at the Forty-first Annual General Meeting, held at the Offices of the Company, London Bridge, City, E.C., Friday, February 17th, 1905.

The Directors have pleasure in presenting the Report and Statement of Accounts for the past year, and in calling the attention of the Shareholders to the very satisfactory advance made in the Company's business. Although the year has been one in which great depression in trade has obtained, the progress made still calls for congratulation.

During the last three years the Income has increased by £376,380, being at the rate of nearly 38 per cent., and in the same period the Assets have increased by £998,632, or by 69 per cent. The following figures show the respective advances made:—

	INCOME.	ASSETS.		INCOME.	ASSETS.
1901 ...	£1,005,988	£1,429,782	1904 ...	£1,382,368	£2,428,414

A Valuation of the business as at December 31st last has been submitted to the Company's Consulting Actuary, R. M. Moore, Esq., who reports a surplus of £538,855, after providing for all liabilities.

INCOME.—The Total Income for the year amounted to **£1,382,368** 0s. 9d., being an increase of **£97,489** 12s. 5d. over that of the previous year. This includes £195,878 18s. 2d. income in the Ordinary Branch, which is £20,286 5s. 0d. greater than the previous year. The number of Policies issued during the year in this Branch was 11,401, assuring the sum of £959,564 0s. 0d., and producing a New Annual Premium Income of £38,933 11s. 7d. It has to be borne in mind that in the past year 52 weeks' premium income was received, against 53 weeks' in the previous year.

PREMIUMS (DECEMBER 1904).—The new Policies issued during the year number 1,278,740, and the Premium Income on the Policies in force on the Company's books now amounts to £1,433,624 9s. 7d.

CLAIMS.—The Company has paid 63,879 Life Claims, Grants, and Matured Endowments during the year, amounting, with Bonuses, to £435,847 4s. 10d., which, added to the sums previously paid in claims since the establishment of the Company, make a total of **£4,263,282** 3s. 1d.

ACCUMULATED FUNDS.—The Total Funds, with Capital paid up, now amount to **£2,428,414** 12s. 8d., showing an increase for the year of **£361,935** 4s. 10d. This is the largest annual increase to the funds yet recorded by the Company.

BY ORDER,
P. J. FOLEY, Managing Director.

See Reports and Opinions of the Press as to the remarkable progress made by the Company.

WANTED, ADDITIONAL REPRESENTATIVES IN ALL DISTRICTS. To good business men liberal terms and certain success. Apply to the Managing Director at the Chief Office, Adelaide Buildings, London Bridge, City, E.C., or to the District Superintendent.

TRAMWAY TOPICS.

Motor 'Buses and the Attitude of South Shield Ratepayers. The Position at Sunderland. Why there was Nothing in Relief of Rates this Year. The L.C.C.'s Raised Tramways. Judgment for Omnibus Proprietors Against Messrs. Dick, Kerr and Co. Fares and Tickets at Leeds. "Wanted to Do Right"—A "Conductor's" Confession.

THE Pontypridd electric tramway track was inspected this week by Lieut.-Col. Druitt, R.E., Local Government Board Inspector. A single-deck car was run from the sheds at Treforest through the town to Cilfynydd. The trip was satisfactory, the car running very smoothly both on the straight and over various curves and gradients. The occasion attracted much attention, a large number of people closely watching the progress of the car. Subsequently Lieut.-Colonel Druitt inspected the car sheds and generating station, the number of cars being six double-deck and six single-deck. There is every reason for believing that the inspector's report will be satisfactory, and it is expected that the service and installation of the electric light will be inaugurated on the 6th of March.

❦ ❦ ❦

Motor 'Buses v. Electric Trams at South Shields.

THE question of substituting motor omnibuses at South Shields for the present electric tramways, which the Town Council contemplates taking over, was considered at a meeting of the Ratepayers' Association this week. After a long discussion a resolution was unanimously carried urging the Town Council not to accept any tender for the laying down of tram lines until it has fully inquired into the advisability of running motor 'buses in the place of the electric tramcars.

❦ ❦ ❦

Sunderland Results.

THE estimated income of the Sunderland tramways for the year ending March 31, 1905, is £65,003, and the gross expenditure £40,481 19s. 5d., leaving a gross profit of £24,521 0s. 7d. It is proposed to dispose of this as follows:—Reserve fund for accidents, &c., £500; alterations to overhead equipment, £58 11s. 2d.; new machine tools, £62; interest, £9,357; depreciation and renewals fund, including sinking fund, £14,542 9s. 5d. Compared with last year the increase in the income is £1,934. There is, however, nothing available for the reduction of the rates, while last year over £4,000 were handed over for this purpose. This is accounted for by the fact that there has been a loss on the East End route and an increase in expenditure. The working expenses for the year will be about 6·399d. The working expenses in other cities and towns, taken on the same basis, are:—Newcastle, 7·14d.; Liverpool, 6·861.; Halifax, 8·78d.; Manchester, 6·85d.; Burnley, 8·21.; and Dundee, 7·261.

Next Year.

THE estimate for the year ending March, 1906, was also submitted. It showed an estimated nett profit of £2,090, the receipts being £65,500 and expenditure £63,410. The amount put down for power is £12,031, the working expenses being estimated at £38,910 altogether, which is £1,571 less than this year, and £2,592 more than last, while for the compensation reserve fund £400 is set aside; for interest £9,500, and for depreciation and renewals fund, including sinking fund, £14,600. This estimate was also agreed to.

❦ ❦ ❦

Leeds Changes.

THE Leeds Tramways Committee has this week considered several important matters affecting the interests of the public. It decided to adopt a uniform penny stage of two miles, to make an experiment with halfpenny fares on two more routes, and to grant further concessions to workmen and children. The equalisation of penny stages has been repeatedly discussed. The present distances vary from one and a half to a little over two miles, and it is proposed to have a uniform length of two miles. With regard to halfpenny fares, the committee resolved that experiments should be made on two routes, with a distance of two-thirds of a mile. The effect of this arrangement will be to divide a uniform two-mile penny stage into three equal halfpenny stages. The penny fare will begin at each halfpenny stage, and continue to the end of the third halfpenny stage. There will be overlapping penny stages. The results of the experiments will influence the committee in its general revised policy throughout the city.

❦ ❦ ❦

Return Tickets for Workmen.

A CONCESSION is made to workmen. No change is proposed with regard to morning travelling, but a workman may obtain a ticket during his outward journey entitling him to return over the same distance at any hour of the day after noon on any part of the car. At the present time a workman can only purchase a cheap ticket on leaving his work between the hours of 5 and 6.15 p.m., and he can only travel outside the car. There is a re-arrangement of children's fares. At present the regulations provide that no child under seven years of age shall pay a fare, but that where there are two children they shall be charged as one fare. Considerable difficulty has been experienced in carrying out this regulation. It has frequently happened that two adults, entering a car with a couple of children, have claimed exemption on the ground that they had one child each. Another existing regulation concerning children is that a child over the age of seven shall be charged full fare. The committee suggests that in future no fare shall be charged for children under five years of age unless occupying seats, and that children between five and 12 shall pay half-fares. A similar privilege will be granted to children under 15 going to and from school. In the case of a three-halfpenny fare a child's fare will be a penny.

❦ ❦ ❦

An Important Case in the Courts.

IN the Chancery Division on Saturday, Mr. Justice Warrington delivered judgment in the action brought by Messrs. Thomas Tilling and Co., omnibus proprietors, for damages for injuries caused to their 'buses by the raised rails erected by defendants (Messrs. Dick, Kerr and Co., of Preston and Glasgow), in connection with the work of converting the South London trams to electric traction. His Lordship said the plaintiffs sued the defendants for damages caused to their 'buses by certain obstructions, viz, raised rails placed in the highway over which the 'buses travelled. The defence was that the obstructions were placed in the road under statutory authority, and that they were protected by the Public Authorities Protection Act of 1893, the defendants having sub-contracted for the work with the London County Council, who were authorised to do the work by statute. Plaintiffs said that even if the defendants were so protected they were negligent in the exercise of their powers, and were, therefore, liable.

❦ ❦ ❦

Judgment Against Messrs. Dick, Kerr and Co.

HIS Lordship found that negligence was not proved, and therefore did not deal further with that question. The defendants made the contract with the London County Council in 1902 to do the work of converting the trams in South London to electric traction, and this included the "provision and maintenance of all necessary temporary raised with other lines to be used during the construction." For the purpose of maintaining the traffic on double lines, the defendants erected short raised lines, and it was this raised line which was the cause of the accidents sued for. He held that the defendants were not covered by the Protection Act, as in his opinion the raised lines were made by the defendants simply in the performance of a private obligation which arose during the contract they had entered into with the London County Council. The plaintiffs were entitled to the relief they sought, and he understood the damage was to be ascertained by an official referee, and stay of execution was granted, with a view to an appeal.

❦ ❦ ❦

West Ham Social and Athletic Club.

THE first annual meeting of this club was held at the West Ham Lane Car Depot on the 10th February, Mr. H. E. Blain, tram-

A. & F. MANUELLE
GRANITE SETTS.
LARGE STOCKS OF ALL SIZES FOR IMMEDIATE DELIVERY.
Also Large Stocks of CURBS, CHANNELS, MACADAM, SIFTINGS, BEDSTONES, TEMPLATES, &c.
Building Work of every description from Architects' and Engineers' Designs.
Chief Office: 57, GRACECHURCH ST., LONDON, E.C.
QUARRIES:—GUERNSEY, ABERDEEN, LEICESTER, IRELAND, NORWAY, & SWEDEN.
Telegraphic Address—"FELDSPAR, LONDON." Telephone Nos. 274 / 296 AVENUE.

ways manager, presiding. The report snbmitted by the hon. secretary (Mr. G. E. Broom) showed that the club had been very successfnl, and the hon. treasurer's statement, submitted by Mr. T. Somerville, showed a balance in hand of over £11. Both the cricket club and the football club had made a creditable beginning, and anticipated a snccessfnl year. The manager was re-elected president, and a representative committee was appointed for the general management of the club, with separate committees for the football club, cricket club, socials and entertainments, and the recreation room.

❧ ❧ ❧

Conscience Money at Bolton.

A REMARKABLE communication was read at the meeting of the Tramways Committee on Monday. It was dated the 13th February, and signed by one who "wanted to do right." The enclosure was a banknote for £10, which the writer stated he had appropriated whilst acting as a conductor on the trams run by the Corporation. There was nothing to lead to the writer's identity. The letter was received by the Committee, and the money will go to the funds of the department. The committee decided to adopt the Municipal Tramways Association standard form of tramway accounts. Mr. Conncillor Tootill (president) and Mr. George Hollas (secretary), representing the Bolton branch of the Tramways and Vehicle Workers' Association, made application for the concession of a week's holiday per annum, with pay, for all motor men, conductors, and night-shed men. The communication was received, and the general manager was instrncted to obtain information from other towns with respect to the subject, a copy to be furnished to each member of the committee.

❧ ❧ ❧

Stirling Against Purchase.

STIRLING Town Council, which has been considering for a considerable time proposals to acquire the existing tramway between Stirling and Bridge of Allan, and utilise electric traction in place of horse haulage, came to a resolution this week that, in view of the large sum likely to be required to purchase the undertaking of the present tramway company, the statutory conditions and restrictions that are imposed upon corporations owning and working tramways, and the present state of the money market, and considering also that a large portion of the proposed tramway under any of the schemes considered wonld be beyond the bnrgh boundary, and so ont of the bnrgh's jurisdiction and rating area, it did not feel that the time was opportnne for putting upon the ratepayers of Stirling the large responsibility which such an undertaking would involve,

❧ ❧ ❧

Glasgow and Paisley Dispute.

LORD BALFOUR of Bnrleigh this week heard parties at the Westminster Palace Hotel in regard to the arbitration pending between the Corporation of Glasgow and the Paisley District Tramways Company regarding the exercise by the Corporation of rnnning powers over a mile of track belonging to the company. A short time ago his Lordship issued an award, but the parties were not agreed upon the interpretation of it, in so far as concerned the question of the cost of the electrical energy for the running of the cars. This week's proceedings, which were held in private, were for the purpose of ascertaining his Lordsbip's determination as to whether the Corporation, in addition to its other working expenses, was to be allowed a sum to cover the cost of the electrical energy. Lord Balfour intimated that while he could not make any addition to the award in fixing the working expenses which he previously allowed to the Corporation, he had intended that to those expenses would be added a sum to cover electrical energy.

MUNICIPAL ELECTRIC TRAMWAY RETURNS.

Undertaking.	Date of Opening.	Length of Route.	Total Length Track.	Year ends.	Last Weekly Return.		Corresponding Week 1904.		Total Receipts for Year.	
		Miles	Miles		Receipts.	Passengers.	Receipts.	Passengers.	1905.	1904.
Aberdeen	Dec. '99	2·50	5	May 31	1,070	—	1,044	—	52,042	46,260
Ayr	Sept. '01	6	8	—	175	52,524	159	46,603	12,083	11,520
Birkenhead	Feb, '01	13·52	23·53	March 31	970	200,821	949	198,597	48,290	49,067
Blackburn	Mch. '99	13½	13½	March 25	—	—	—	—	—	—
Blackpool	Oct. '84	3	6	March 31	303	—	275	—	45,602	39,492
Bolton	Nov. '99	25	40	March 31	1,630	358,750	1,622	356,027	85,261	84,800
Bournemouth	July '02	11·8	18·2	March 31	895	166,327	858	160,938	53,445	17,637
Bradford	July '98	53¾	95¼	March 31	3,881	—	3,517	—	203,495	173,950
Brighton	Nov. '01	6·5	11·75	—	760	171.472	711	170,651	—	—
Burnley	Mch. '02	10·60	10·60	March 31	964	179,927	867	162,015	—	—
Cardiff	Dec. '01	16	30	March 31	—	—	—	—	—	—
Darwen	Oct. '00	4·5	4·25	Dec. 31	—	—	—	—	—	—
Dover	Sept. '97	3·5	4·5	March 31	169	43,721	162	41,704	10,211	10,341
Dundee	July '00	12·56	23·1	March 31	—	—	—	—	—	—
East Ham	June '01	6·6	10·75	March 31	651	242,289	600	229,905	32,648	30,860
Glasgow	Oct. '98; Extens., April '01	72½	143	May 31	13.991	3,695,551	12,917	3,422,702	540,051	513,501
Halifax	—	—			2,411	578,640	2,195	526,800	68,008	61,151
Huddersfield	Feb. '01	—	32	March 31	—	—	—	—	—	—
Hull	July '99	12·25	25	March 31	2,026	486,384	2,039	481,959	98,606	87,700
Ilford	Mar., '03	6·5	10·5	—	368	96,657	338	—	20,127	19,117
Ilkeston	May, '03	3·5	4	—	101	26,911	118	30,570	—	—
Leeds	Aug. '97	37	71	March 25	5,391	—	4,956	—	268,250	252,953
Liverpool	Nov. '98, June '99	66	114	Dec. 31	10,000	2,177,101	9,471	2,057,165	53,887	57,253
L.C.C.*	1897, Jan. '99	—	47¼	March 31	12,862	—	9,661	—	575,479	446,788
Manchester	June '01	72	131·50	March 31	11,670	2,396,436	10,572	2,170,803	559,926	534,457
Nelson	Mch. '02	2·75	3·5	—	107	33,097	94	28,003	5,459	—
Newcastle	Dec. '01	17	36	—	3,513	794,215	3,433	763,827	—	—
Oldham	Dec. '00	18	28	—	1,364	273,491	1,058	234,338	59,007	54,606
Portsmouth	Sept. '01	15	28	—	1,362	296,083	1,342	295,902	87,170	80,702
Reading	July '03	7½	13⅛	—	545	125,787	563	132,301	29,264	—
Rotherham	Jan. '03	7⅓	—	March 25	386	87,899	391	86,758	17,324	14.777
Salford	Oct. '01	32½	59½	March 31	3,846	722,984	3,663	701,703	188,024	178,844
Sheffield	Sept. '99	32½	59½	March 25	4,387	1,162,363	4,282	1,135,675	218,412	212,614
Southampton	Sept. '98	9⅜	16⅝	March 31	794	143,761	880	170,477	44,261	46,840
Southend-on-Sea	July '01	6·85	—	March 31	—	—	—	—	—	—
Sunderland	July '00	12·27	23	—	1,079	—	1,061	—	57,933	56.511
Wallasey	Mch. '02	9	10·5	March 31	631	120,942	568	109,495	34,198	31,866
Walsall	Jan. '04	12½	13½	Dec. 31	455	81,596	464	84,535	3,049	3,256
West Ham	Feb. '04	9·78	12·98	—	1,079	317,034	—	—	49,446	—
Wolverhampton	April '02	11·258	16·848	March 31	659	142,906	383	78,732	—	—

* Also includes the horse lines.

DUST DESTRUCTORS.

To the Editor.

SIR,—I have now read with interest the letter by Mr. Frank Watson on the subject of dust destruction, but think he has omitted a most important factor, *the cost of up-keep*, as on this depends to a large extent the final cost to the ratepayers, who sometimes in deciding on the selection of the lowest tender let themselves in for an ever-increasing and endless expense, whereas if those responsible had studied the designs of the various plants offered, and made inquiries, not from the makers, but *users* of the various types, they would have been spared a lot of expense, as well as frequent shut-downs, during which time the plant cannot be fully at work.

Anyone interested in this point, as well as the actual cost of labour (not what may be the "promise" of the maker), cannot do better than refer to the useful tables given in the *Electrical Times* of March 3rd, 1904, and November 24th, 1904, of two London installations that have been much boomed, with, I think, little to back them up. It will be seen by anyone who refers to the above-mentioned tables, that at Fulham, during the year ending March 31st, 1903, the cost of labour was 18·9d. per ton of refuse burned, or a total cost per annum of £2.378, whilst the cost of up-keep was £344, or 2·7d. per ton of refuse. In the second case, that of Hackney, the total labour cost was £3,611, or 22·1d. per ton of refuse destroyed, and up-keep £467, being 2·9d. per ton of refuse. This does not strike one as so very worthy of comment.—Yours, &c.,

"CAREFUL INVESTIGATOR."

DICK, KERR & CO., LIMITED,
ABCHURCH YARD, CANNON STREET, LONDON, E.C.

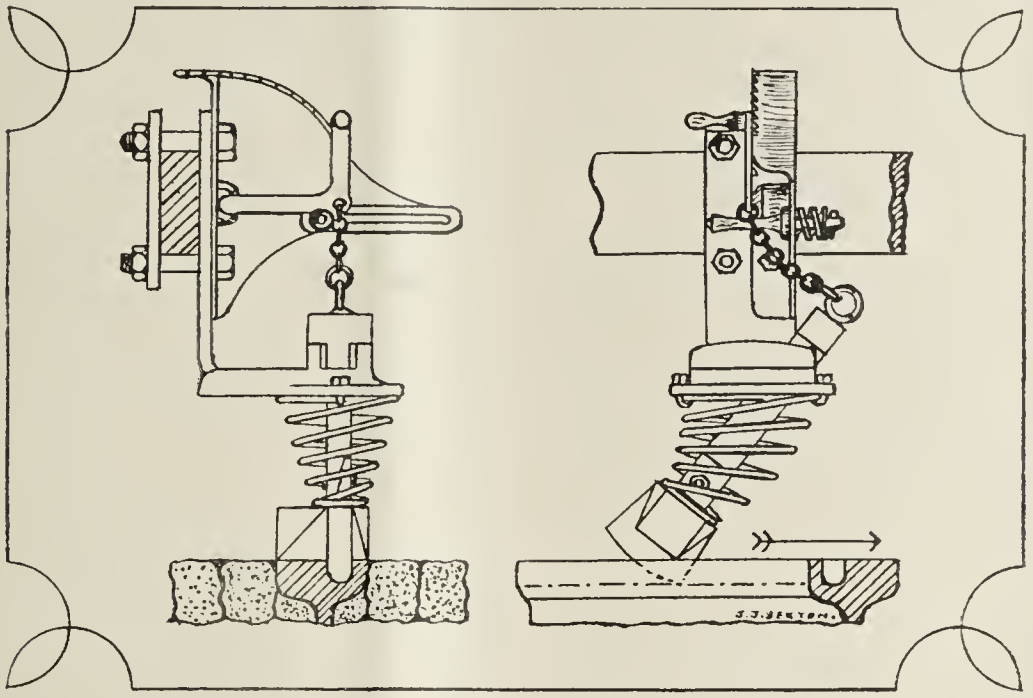
Contractors for Municipal Lighting and Tramway Schemes.

Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.
Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

A NEW, EFFICIENT, AND CHEAP AUTOMATIC RAIL CLEANER.

WE have had brought under our notice a new rail-cleaning machine, which has the hitherto unattained merit of combining efficiency and reliability with facilities which enable it to be attached to tramcars that are fitted with mechanical track brakes.

This latter feature is one of considerable importance in these days of stringent Board of Trade regulations, as heretofore it was found impossible to fit a rail cleaner to cars equipped with track brakes. In addition to this, the apparatus can be fitted with a simple contrivance for lifting the cleaning portion of the machine out of service when not required. This can be operated by the conductor, and should prove very useful on tramways where there are steep inclines, on which it is sometimes desirable not to use a cleaner.



The inventors and patentees of this rail cleaner (Jerrard's Automatic Track Cleaners, Limited, 598, Commercial Road, London, E.) have had considerable experience of the conditions under which a rail cleaner has to work, and they seem to have taken into account every obstacle they have met with whilst working their original pattern cleaner, and the present machine has been designed with the object of meeting all the objections that have been raised.

Then, as to price, we are informed that this has been reduced enormously, and, further, the improved action of the cleaner reduces the pressure on the shoes, thus enabling them to traverse twice the mileage. We recommend this apparatus to tramway managers and engineers, and if it be found to have successfully settled the rail-cleaning question, we are sure that it will soon secure the success it undoubtedly deserves.

PEARL LIFE ASSURANCE COMPANY, LIMITED.

ON Friday last the forty-first annual meeting of this company was held, and the report and statement of accounts for the past year were presented. The directors are again able to report satisfactory progress. The income has increased during the last three years at the rate of nearly 38 per cent., whilst in the same period the assets have risen by 69 per cent.

The total income for the year amounted to £1,382,368 0s. 9d., an increase over that of the previous twelvemonth of £97,489 12s. 5d. The new policies issued during the year number 1,278,740, and the premium income on the policies in force now amounts to £1,433,624 9s. 7d. The total number of life claims, grants, and matured endowments for the year was 63,879, amounting, with bonuses, to £435,847 4s. 10d.

The total funds, with capital paid up, now amount to £2,428,414 12s. 8d., showing an increase for the year of £361,935 4s. 10d., being the largest annual increase to the funds yet recorded by the company.

BOVRIL, LIMITED.

AT the meeting of this company on Friday last, Lord Duncannon was able to tell the shareholders that, while smaller sales and dwindling profits had proved the experience of most commercial concerns, the account he had the satisfaction of presenting showed a record turnover and an increased profit.

The Longer you use

THE EMPIRE TYPEWRITER

The Better you will Like it.

Price only £13 2s. 6d.

USERS:—

His Majesty's Government	630
Harrod's	44
C. P. Railway	475

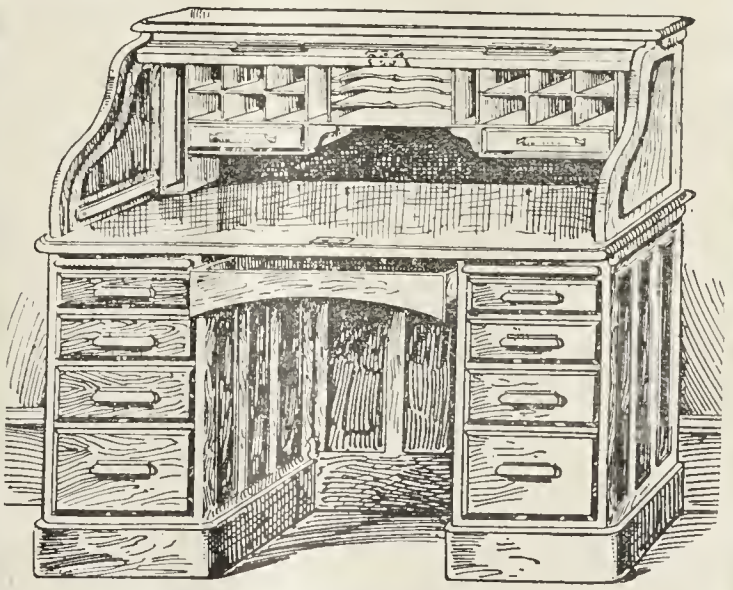
TRY ONE. TRIAL FREE.

The EMPIRE TYPEWRITER CO., Ltd.,

77, QUEEN VICTORIA STREET, E.C.

An English Roll-Top Desk

For many years past the American Roll-Top Desk has had a monopoly in this country; but we are now happy to offer a really home-made Desk which for convenience, durability, finish, and price, is not to be beaten. The desk is made of solid oak throughout, fumed, wax polished, and is stocked in four sizes.



PRICES from £5 7 6

Carriage paid to any station in Great Britain.

PARTRIDGE & COOPER, Ltd.,

192, Fleet Street, London, E.C.

Appointments Vacant.

Latest date for applications in parentheses.

Assistant to Matron. £25. E. L. Fisher, Union Offices, Banbury. (March 6.)

Baths Superintendent. £60. W. W. Goddard, Town Hall, Stourbridge. (March 6.)

Bookkeeper. £110. H. J. Hoare, Borough Treasurer. Devonport. (February 28.) See advt. in this issue.

Borough Accountant. W. Tilly, Town Clerk, Town Hall, Morecambe. (February 28.)

Building Inspector. £120. C. F. Wike, City Surveyor, Town Hall, Sheffield. (March 4.)

Caretakers (Man and Wife). £35 and £26, &c. J. Lamb, Clerk to Guardians, 206, Goldhawk Road, Hammersmith, W. (March 11.)

Chief Constable. £300. H. Edgar Thomas, County Hall, Brecon. (March 17.)

Clerks (Five General). £60. The Chairman, Finance Committee, Town Hall, East Ham, E. (March 4.) See advt. in this issue.

Clerk (Financial). £120. H. C. Damant, Clerk to District Council, Cowes. (March 1.)

Clerkships (Fourth-class). Particulars of Examination from the Clerk of the London County Council, County Hall, Spring Gardens, S.W., by April 26 and May 15. See advt. in this issue.

Clerk of Works. £2 10s. per week. T. A. Rees, Town Hall, Merthyr Tydfil. (February 28.)

Collector. E. Davey, Clerk to Guardians, St. John's Road, Upper Holloway, N. (March 2.)

Deputy Town Clerk. £800. (Johannesburg.) E. W. Carling and Co., St. Dunstan's Buildings, St. Dunstan's Hill, E.C. (February 28.) See advt. in this issue.

District Foremen. £2 10s. per week. Fredk. Ryall, Town Clerk, Spa Road, S.E. (March 6.) See advt. in this issue.

Electricity Mains Superintendent. £120. C. D. Burnet, Corporation Electricity Works, Carlisle. (February 28.)

Engineering Assistant (Second). £100. H. Hankinson, Town Clerk, Guildhall, Northampton. (February 28.) See advt. in this issue.

Engineering Assistant (Second), £75; Junior Clerk, £40; Junior Clerk, £75. Ernest F. Collins, Town Hall, Chiswick, W. (March 2.) See advt. in No. 629.

Engineer and Fitter. £75. G. W. Coster, Union Offices, St. James Road, Dudley. (March 3.)

Engineer (Sewage). £1,000. R. E. Fox, Town Clerk, Leeds. (March 11.)

Fireman. 30s. per week. Wm. Francis Payne, Clerk of the Council, Town Hall, Edmonton. (March 8.) See advt. in this issue.

Gasworks Foreman. £2 per week. J. E. Kenshole, General Manager, Gasworks, Merthyr Tydfil. (February 27.)

General Foreman in Highways Department. 25s. per week. W. H. Bolt, District Surveyor, Leigh, Tonbridge, Kent. (March 1.)

Health Visitor. £100. W. Chambers Leete, Town Clerk, Town Hall, Kensington. (March 3.) See advt. in this issue.

Inspector of Nuisances. 45s. per week. Chairman of Withington Committee, Town Hall, West Didsbury, Manchester. (March 1.)

Inspector, Erection of Bridge. £3 per week. W. Tanner, County Surveyor, Newport, Mon. (March 1.)

Librarian (Assistant). £75. The Librarian, Public Library, Hounslow. (February 27.) See advt. in this issue.

Librarian. £90. E. Parkes, Town Clerk, Town Hall, Eccles. (February 27.) See advt. in No. 629.

Master and Matron. £140 and £70. J. J. Simpson, Clerk to Guardians, St. Peter's Hospital, Bristol. (February 29.)

Master and Matron (Married Couple). £60 and £40. J. Munn Mace, Clerk to Guardians, Tenterden, Kent. (March 7.)

Matron of Isolation Hospital. £50. H. Hargreaves, Public Offices, Barking, Essex. (February 28.)

Matron (Assistant). £20. T. E. Parry, Union Office, Conway. (March 3.)

Medical Officer, District and Public Vaccinator. £60. &c. J. Lamb, Clerk to Guardians, 206, Goldhawk Road, Shepherd's Bush, W. (March 11.)

Nurse. £22. H. Cuthbertson, Clerk to Guardians, 58, Water Street, Neath. (March 13.)

Nurse. £30. R. H. Roberts, Union Offices, Ruthin. (March 4.)

Nurse. £25. W. F. B. Dawe, Union Offices, Taunton. (March 10.)

Nurse (Assistant). J. E. Chatterton, Union Offices, Horncastle. (February 28.)

Nurse (Charge). £35. A. Druitt, Clerk to Guardians, Christchurch. (March 3.)

Porter and General Assistant (Man and Wife). £30 and £24. A. Crockett, Union Workhouse, Christchurch. (March 3.)

Relieving Officers. £150. W. R. Stephens, Guardians' Offices, Marloes Road, Kensington, W. (February 27.)

Relieving Officer, Collector, and Vaccination Officer. £120 and commission, &c. H. C. Canham, 68, Friars Street, Sudbury. (March 2.)

Superintendent of Lighting, Cleansing Ashpits, Refuse Destructor, &c. £120. Chairman of Withington Committee, Town Hall, West Didsbury, Manchester. (March 1.)

Surveyor, County Roads. £150. H. E. Thomas, Clerk of County Council, Brecon. (March 3.)

Surveyor, Highways. £200. W. W. Duffield, Clerk to Rural District Council, 96, High Street, Chelmsford. (March 6.)

Surveyor and Inspector of Nuisances. £150. W. Richardson, Clerk to Rural District Council, Guisborough. (March 1.)

Surveyor's Assistant, £65. J. D. Fidler, Clerk to District Council, Forest Street, Sutton-in-Ashfield, Notts. (March 6.)

Surveyor's Assistant. £150. Competitive Examination. Particulars, Director of Works, Admiralty, Northumberland Avenue, W.C. See advt. in this issue.

Surveyor (Assistant). £80. F. S. Cloke, Clerk to District Council, Sandwich. (February 27.)

Surveyor—Road. £130. W. Nicholson, District Clerk, Kirkcudbright. (February 28.)

Surveyor's Assistant, &c. £80. E. J. Reynolds, Surveyor, Beaconsfield Road, New Southgate, N. (February 27.)

Waterworks Engineer. R. E. Fox, Town Clerk, Leeds. (February 28.)

Tenders Wanted.

Latest date for sending in tenders in parentheses.

Caps, Clothing, Linen and Cotton Goods, &c. R. Greenwood, Guardians' Offices, Brook Street, Kennington, S.E. (February 28.)

Cartage of 12,000 Tons of Granite, &c. H. T. Wakelam, Guildhall, Westminster, S.W. (February 28.)

Cast-Iron Pipes, &c. T. J. Rushbrooke-Borough Surveyor, 77, Easton Street, Chipping Wycombe. (March 7.)

Chemists', Grocers' and Bakers' Goods. W. H. Snow, Town Clerk, Southend-on-Sea. (March 1.) See advt. in No. 629.

Clerk (Ledger and General) in Accountant's Department. £104. Samuel Lord, Accountant, Council Offices, 242, High Street, Acton, W. (March 7.) See advt. in this issue,

Contracts for Supplies. Frank Hutchinson, Clerk to the Guardians, Clerk's Office, Ashford, Middlesex. (March 6.) See advt. in this issue.

Contracts for Work, Materials, &c. C. R. Fortune, City Surveyor, Guildhall, Bath. (March 7.)

Contracts—Works and Materials. F. D. Askey, Town Clerk, Southwood Lane, Highgate, N. (February 20.)

Contracts—Goods and Works. H. Hargreaves, Public Offices, Barking. (March 3.)

Contracts—Works and Materials. R. H. S. Butterworth, Clerk to District Council, Council Offices, 12, Queen's Road, Wimbledon. (March 4.) See advt. in No. 628.

Contracts. H. Mansfield Robinson, Town Clerk, Town Hall, Old Street, E.C. (March 14.) See advt. in No. 629.

Contracts for Supplies. A. Creer, City Engineer, Guildhall, York. (March 1.)

Contracts for Supplies. R. M. Prescott, Town Clerk, Town Hall, Fulham. (March 15.) See advt. in No. 629.

Contracts for Supplies. J. S. Pickering, Borough Surveyor, Municipal Offices, Cheltenham. (March 17.)

Contracts for Supplies. G. Bruce Tomes, Council Offices, High Street, Mortlake. (March 13.) See advt. in this issue.

Contracts for Supplies. E. H. Lister, Council Offices, Church End, Finchley. (March 14.) See advt. in this issue.

Contracts for Supplies. C. W. Dommett, Clerk to District Council, Town Hall, Anerley. (March 6.) See advt. in this issue.

Contracts for Supplies. J. Wilson, Town Clerk, Town Hall, St. Marylebone, W. (March 13.)

Contracts for Works and Materials. W. A. Williams, Town Clerk, Town Hall, Hackney, E. (March 9.) See advt. in this issue.

Electrical — Sub-station Equipments. R. E. Fox, Town Clerk, Town Hall, Leeds. (March 14.) See advt. in this issue.

Electrical — Cable. H. Bell, City Electrical Engineer, Sculcoates Lane, Hull. (March 1.)

Electricity Department—Materials. W. Marcus Wilkins, Town Clerk, Town Hall, Battersea, S.W. (February 27.)

Electric Lighting. George Webb, Town Clerk, Town Hall, Milton Road, Stoke Newington, N. (March 8.)

Electric Lighting. R. B. Nicholson, Town Clerk, Town Hall, Lowestoft. (March 9.)

Electricity and Tramway Contracts. H. Collings Bishop, Town Hall, Newport, Mon. (March 6.)

Extension of Public Baths and Alteration to Prisoners' Cells. F. E. Hilleary, Town Clerk, Town Hall, West Ham, E. (February 28.) See advt. in No. 629.

Forniture, &c. E. Crowne, Clerk of District Council, Tottenham. (March 7.)

General Stores. W. H. Snow, Town Clerk, Southend-on-Sea. (March 2.) See advt. in See advt. in No. 629.

Granite. &c. W. Parker, Clerk to District Council, 2, High Street, Thame. (February 27.)

Heating. L. C. Evans, Town Clerk, Town Hall, Salford. (February 27.)

Iron Buildings for Sale. E. Cozens, Public Office, Hampton, Middlesex. (February 27.)

Library. F. H. Norman, Municipal Offices, Bromley, Kent. (March 7.)

Loans of £50 and Upwards. Haswell Brown, Borough Accountant, Town Hall, Sunderland. See advt. in this issue.

Loan of £450.—E. C. Rolfe, Clerk to District Council, Sheringham. (March 6.)

Materials. E. H. Lister, Town Clerk, Town Hall, Croydon. (February 23.) See advt. in this issue.

Materials, &c. J. L. Hawksworth, Council Offices, Bolton-upon-Dearne. (March 6.)

Materials and Goods. A. Burton, Borough Surveyor, Town Hall, Stoke-upon-Trent. (March 1.)

Municipal Buildings. J. M. Hayton, Town Clerk, South Shields. (March 18.)

Municipal Buildings—Competitive Designs Invited. H. J. Smith, Town Clerk, Town Hall, Kennington Green, S.E. (March 30.)

Pipes. F. R. Phipps, Town Hall, Basingstoke. (March 8.)

Provisions. J. C. Hayward, Sessions House, Dartford, Kent. (March 6.)

Provisions, Drogs, &c. H. Westbury Preston, Clerk to Guardians, New End, Hampstead. (March 1.)

Pumping Machinery. L. A. Skinner, Council Offices, Broadstairs. (March 11.)

Reservoir Tank, &c. D. J. Purcell, Council Office, Naas, Ireland. (March 1.)

Road Materials. W. Middlebrook, Council Offices, Birstall; near Leeds. (March 8.)

Road Materials, Cartage, &c. F. J. Wood, County Surveyor, County Hall, Lewes. (February 28.)

Road Making. G. E. Brydges, Town Clerk, Town Hall, Ealing, W. (February 28.)

School Materials. H. C. Padgett, Education Office, East Ham, E. (February 27.) See advt. in No. 629.

School—Competitive Designs Invited. Premiums £50, £30, and £20. Hy. Hamer, Town Clerk, Town Hall, Preston. (February 28.)

Schools—Designs Invited. Premiums £50 and £25. C. G. Watkins, Education Office, Aylesbury. (February 28.)

Sewerage. F. R. Phipps, Town Hall, Basingstoke. (March 8.)

Sewage Tanks, &c. Town Clerk, Wrexham. (March 1.)

Sewers. R. W. Staniland, Town Clerk, Municipal Buildings, Boston. (March 7.)

Sewerage Works. W. R. Parrott, Clerk to Rural District Council, High Street, Stony Stratford. (February 28.)

Stables—Erection of. J. A. Johnson, Town Clerk, Town Hall, Walworth Road. (March 1.) See advt. in No. 629.

Stoneware Pipes, &c. R. Vincent, Town Hall, Leyton. (March 7.)

Street Works. F. E. Hilleary, Town Clerk, Town Hall, West Ham, E. (February 28.) See advt. in No. 628.)

Supplies. W. R. Foskett, Clerk to the Managers Poplar Sick Asylum, Bromley, Middlesex, E. (March 14.) See advt. in this issue.

Supplies. E. Haslehurst, Clerk to Guardians, Union Offices, Park House, Beckenham Lane, Bromley. (March 31.)

Supplies. S. A. Lewis, Clerk to Guardians, Barnes Street, Commercial Road East, E. (March 9.)

Supplies. J. Edgell, Clerk to Guardians, Union Offices, Coombe Road, Kingston-on-Thames. (February 28.)

Supplies. G. Herbert Lough, Clerk to Guardians, Union Offices, 45, Upper North Street, Poplar, E. (March 8.) See advt. in this issue.

Supplies. J. Hutton Haylor, Clerk to Guardians, 329, High Road, Kilburn, N.W. (March 7.)

Supplies. J. Allan Battersby, Clerk to Guardians, Union Offices, 53, Clerkenwell Road, E.C. (March 8.) See advt. in No. 629.

Supplies. J. Dowling, Clerk to Guardians, 250, King's Road, Chelsea. (March 8.) See advt. in No. 629.

Supplies. E. J. Mott, Clerk to Guardians, Fulham Palace Road, Hammersmith, W. (March 8.) See advt. in this issue.

Supplies. G. L. Gomme, Clerk of the London County Council, County Hall, S.W. (March 7.)

Supplies. E. Davey, Clerk to Guardians, St. John's Road, Upper Holloway, N. (March 9.) See advt. in No. 629.

Supplies. H. F. Keene, Acting Clerk Asylums Committee, 6, Waterloo Place, S.W. (March 7.) See advt. in this issue.

Supplies. F. J. Tootell, Clerk to Guardians, Union Offices, Vallance Road, N.E. (March 7.) See advt. in this issue.

Supplies.—Frank T. Coles, Clerk to Guardians, Hackney Union, Homerton. (March 6.) See advt. in this issue.

Tea. W. R. Foskett, Clerk to the Managers Poplar Sick Asylum, Bromley, Middlesex, E. (March 8.) See advt. in No. 629.

Water Supply Contracts. Thomas Bates, Clerk to District Council, Glemsford, Suffolk. (March 1.)

Wood Blocks. E. Crowne, Clerk of District Council, Tottenham. (March 7)

TO CONTRACTORS.

IT WILL PAY YOU
to Subscribe to
THE MUNICIPAL JOURNAL.

Office: 12, SALISBURY SQUARE, LONDON, E.C.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment.
LONDON, W.C.
Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

BONDS are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary SHIRLEY FUSSELL.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM.
Edited by ROBERT BLATCHFORD.

You should read "THE CLARION" for reliable information as to
MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century,

You Must Read "THE CLARION."

Send for specimen copy to "THE CLARION" Office,
72, FLEET STREET, LONDON, E.C.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CARTOONS.
Specialists in Photo.-Litho,
Photo-Copies, and Sun Prints,
VACHER & SONS. Westminster.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS.
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

ROAD SCAVENGER.
F. COWLEY, C.E.,
Launceston, Cornwall.

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES,
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION
IS FAR IN EXCESS
OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL, 12, SALISBURY SQUARE, LONDON.

IDRIS ROYAL MINERAL WATERS

The Purest and Best.

IDRIS & CO., Ltd., Camden Town, LONDON, N.W.; And at LIVERPOOL, SOUTHAMPTON, and CANTERBURY.

AUGUSTE PELLERIN'S BRITISH-MADE Margarine - Mixtures.

AWARDED

10 GOLD MEDALS.

"LE DANSK" 1st Quality.

The LANCET says: "It is of pure and excellent quality."

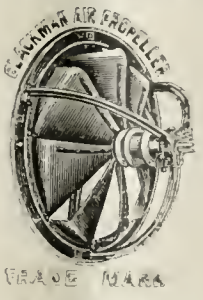
The PUBLIC ANALYST says: "The gustatory properties are in every way equal to the best Butter, and the dietetic value is identical."

ALSO VARIOUS CHEAPER GRADES
SPECIALLY PREPARED FOR PUBLIC INSTITUTIONS.

"LE DANSK" FACTORY, SOUTHAMPTON.

THE BEST JUDGES OF CIGARS
Now obtain their supplies at
BENSON'S, 61, St. Paul's Churchyard, London.
Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

BLACKMAN



ELECTRIC FANS.

GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

DOULTON'S

SPECIAL

SCHOOL CLOSETS

FOR

INFANTS AND CHILDREN.

These Closets are only 13½in. high, and are specially suitable for children. The pan and trap is in one piece, with brass inspection cap, and cleanses well with a 2-gallon cistern. It is made in two patterns, one with fixed side pieces, the other with lugs to take a hinged seat. Also made with side outlet.

DOULTON'S SPECIAL LIST OF SANITARY FITTINGS SUITABLE FOR SCHOOLS SENT ON APPLICATION.

Every description of High-class Sanitary Fittings for Mansions, Hotels, Clubs, Hospitals, Schools, and Public Buildings of all kinds to be seen in action at Showrooms—

ALBERT EMBANKMENT, LAMBETH, LONDON, S.E.

Printed and Published by EDWARD LLOYD, Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE MUNICIPAL JOURNAL

No. 632.—Vol. XIV. FRIDAY, MARCH 10, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. TWOPENCE.

CONTENTS.

	PAGE
BRIDLINGTON ELECTRICITY SCHEME	193
A YEAR OF TRAMWAYS	195
THE ENLARGED "M. J."	196
OUR PRIZE ESSAY	197
TELEPHONES PURCHASE	199
OFFICIAL AND PERSONAL	200
ELECTRICAL MONOPOLY MENACE	201
MUNICIPAL INSURANCE	202
NOTES AND ANSWERS	203
NOTES AND COMMENTS:— The Companies' Franchise Bill; Local Government Board Estimates; Emigration of State Children	207
A Novel Challenge; How to Keep Officials; London Steamboats	208
ROUND THE UNIONS:— Bethnal Green	209
CORRESPONDENCE:— A Difficulty of Site Value Taxation, and "Municipal Finance"	211
TRAMWAY TOPICS	213
ELECTRICITY SUPPLY	215
TRAMWAY ANALYSES	217
THE SURVEYOR AND CONTRACTOR	219 &c.

Official Advertisements.

LEWISHAM UNION.

CONTRACTS FOR SUPPLY OF MEAT, GROCERY, AND MILK TO OUTDOOR POOR.

THE Guardians of the Lewisham Union invite APPLICATIONS from Local Tradesmen for outdoor SUPPLIES, for the year commencing 26th inst., such applications to be delivered not later than Monday, 13th inst., at 11 a.m.

By order.
H. C. MOTT,
Clerk to the Guardians.

Union Offices,
286, High-street, Lewisham.
6th March, 1905.

Official Advertisements.

METROPOLITAN BOROUGH OF ST. MARYLEBONE.

PRINTING, ACCOUNT BOOKS, STATIONERY, &c.

THE Council of the Metropolitan Borough of St. Marylebone invite TENDERS for:—

(a) Printing.
(b) Books and ruled forms.
(c) Note Paper, Envelopes, &c.
(d) Pens, Pencils, Ink, &c.,

for a period of three years.

Tenders to be delivered to the undersigned, at the Town Hall, endorsed, "Tender for ....," not later than twelve o'clock noon, on Thursday, the 23rd day of March, 1905.

Further particulars and forms of tender may be obtained, and samples inspected on application at the Town Hall, Marylebone-lane, Oxford-street, W., between ten and four o'clock.

The Council will not be bound to accept the lowest or any tender.

By order.
JAMES WILSON,
Town Clerk.

Town Hall, Marylebone-lane,
Oxford-street, W.,
March, 1905.

METROPOLITAN BOROUGH OF ISLINGTON.

THE Council are prepared to receive LOANS up to £39,080, for the borrowing of which sum sanctions have been obtained, in sums of £10 (and upwards in multiples of £10), on the security of the rates of the borough, at 3 per cent. per annum, for periods of 18 months, three years, or five years, at the option of the lender.

Loans will be received by the Borough Treasurer on any day (except Saturday), between the hours of 10 and 1, and 3 and 5 o'clock.

Persons lending money must take an interim receipt for same, signed by the Borough Treasurer, which will be exchanged in due course for a mortgage under the seal of the Council.

Information as to the rateable value and the indebtedness of the borough, together with further particulars, can be obtained upon application to the Borough Treasurer, at the Town Hall.

By order.
WM. F. DEWEY, Town Clerk.

Town Hall, Upper Street, Islington.
February, 1905.

Official Advertisements.

CITY OF LIVERPOOL.

APPOINTMENT OF ASSISTANT PROSECUTING SOLICITOR.

THE Corporation of the City of Liverpool require the services of a gentleman to fill the office of ASSISTANT PROSECUTING SOLICITOR, and to assist generally in the work of the Town Clerk's Department.

Salary £500 per annum, subject to a contribution of £3 per cent. per annum to the Corporation Superannuation Fund.

The Solicitor appointed will also be required to effect an insurance on his life to an amount the premium on which is equal to £2 per cent. of his salary. He will be required to devote his whole time to the services of the Corporation, and will not be allowed to engage in private practice. Age not to exceed 35 years.

Particulars of duties may be obtained on application to the Town Clerk.

Canvassing of members of the Council is prohibited.

Application, stating age and qualifications, with copies of testimonials (not exceeding six), endorsed "Assistant Prosecuting Solicitorship," addressed to the Chairman of the Finance Committee, under cover, to the Town Clerk, Municipal Offices, Liverpool, must be delivered at the Town Clerk's Offices not later than the 21st inst.

By order.
EDWARD R. PICKMERE,
Town Clerk.

Town Clerk's Office,
Liverpool,
3rd March, 1905.

MR. LONG'S SCHEME.

THE Central Employment Exchange requires a SUPERINTENDENT. Good correspondent, accustomed to figures. Age between 25 and 35. Salary £150. Apply by letter only, stating previous experience, and enclosing copies of testimonials, to E. H. A., Box 470, c.o. Judd's Advertising Offices, 5, Queen Victoria-street, E.C.

COUNTY BOROUGH OF SUNDERLAND.

THE Corporation are prepared to receive LOANS of £50 and upwards on security of the Rates of the Borough, at six months' notice or for a fixed period.

For further particulars, apply to Haswell Brown, Borough Accountant, Town Hall.

Sunderland.
13th December, 1904.

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's Cocoa

Absolutely PURE — therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

CRATES MANTELS & KITCHEN RANGES
CASTINGS & CHANDELIERS
BRUSHES PAINTS OILS & VARNISHES
BATHS LAVATORIES AND GOODS FOR SANITARY ENGINEERS
WINDOW GLASS LEADED LIGHTS & CASEMENTS
BUILDERS' IRONMONGERY
BUILDERS' CASTINGS HEATING APPARATUS AND STABLE FITTINGS
TIMBER JOINERY WOOD & WHARF GOODS

All these Books are Bound (Cloth Boards) in

Two Volumes,

Containing 880 Pages 12" by 10" (54 in Lithography), and with our No. 27 Tariff.

Form one of the most Practical Up-to-date Guides to Purchasers of all kinds of Builders' and Sanitary Engineers' Goods yet issued.

We will send them **Carriage Paid,** to ARCHITECTS, ENGINEERS, and SURVEYORS upon receipt of bona-fide applications.

Please mention this Journal when applying.

YOUNG & MARTEN, LTD.

CALEDONIAN WORKS. STRATFORD, LONDON, ENGLAND.

NOW READY. PRICE 3s. 6d. POST FREE, 3s. 11d. NOW READY.

THE MUNICIPAL YEAR BOOK for 1905.

OFFICIALLY REVISED—IMPROVED AND EXTENDED.

EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, FLEET STREET, LONDON E.C.

WESLEYAN AND GENERAL ASSURANCE SOCIETY.

ESTABLISHED 1841. (Empowered by Special Act of Parliament.)

CHIEF OFFICES - - - BIRMINGHAM.

The SIXTY-FOURTH ANNUAL GENERAL MEETING was held at the Grand Hotel, Colmore Row, Birmingham, February 28th, 1905, Mr. JOHN FIELD, J.P., President of the Society, in the chair. The following Report was presented:—

It affords your Directors much pleasure to present their Report and Statement of Accounts for the year ending December 31st, 1904.

The total number of Members and Policy-holders at the close of the year was 1,067,586, an increase of 52,033 on the year, after allowing for lapses and deaths.

The total Income for the year was £674,875 0s. 1d.

The Claims during the year amounted to £289,144 8s. 7d., which added to the sum previously paid gives a total of £3,648,051 11s. 8d. paid since the commencement of the Society.

The Accumulated Funds at the end of the year amounted to £894,271.

The Accounts for the year have been audited, and the whole of the Securities examined by the Auditors who have certified to the correctness thereof.

The Consulting Actuary's Valuation Report for the year ending December 31st. 1904, was presented.

The Directors recommend that a Bonus of 30s. per cent. for the past year on With-Profit Whole Life and Endowment Assurances be declared.

BALANCE SHEET of the Wesleyan and General Life and Sickness Assurance Society, on the 31st December, 1904.

LIABILITIES.	£	s.	d.	£	s.	d.
Life Assurance Fund	792,656	10	1			
Sickness Assurance Fund	52,660	1	9			
Annuity Fund	8,887	10	3			
Reserve Fund	30,000	0	0			
Total Funds				884,204	2	1
Superintendents' and Agents' Guarantee Funds				10,066	17	11
				£894,271	0	0

ASSETS.			£	s.	d.
Mortgages on Property within the United Kingdom			477,885	17	8
Loans on Municipal and other Rates			193,142	13	3
,, the Societies Policies			31,694	19	0
Investments—					
Freehold Chief and Branch Offices, Furniture, Fixtures, &c.			77,236	0	6
Freehold and Leasehold Properties			33,464	3	4
Freehold Ground Rents			2,894	13	7
Invested in Policies			79	13	1
Agents' Balances			1,448	9	1
Outstanding Premiums			45,176	18	2
,, Interest	£7,212	18 0			
,, ,, accrued to December 31st	6,193	8 6			
			13,406	6	6
Cash on Deposit	£11,172	4 4			
,, in hand, and on Current Account	6,669	1 6			
			17,841	5	10
			£894,271	0	0

Examined with the Books and Securities of the Society, and found correct.

Auditors: ARTHUR J. LEESON, CHARLES E. MURRAY, ALFRED FRANKLIN, J. EVERITT CLARKE, CHARLES SUNDERLAND.

January 18th, 1905.

JOHN FIELD, Chairman.
DAVID BARR, Vice-Chairman.
JOSEPH JAMES POOLE, Director.
R. ALDINGTON HUNT, General Manager.

The

Municipal Journal.

No. 632.—Vol. XIV. MARCH 10, 1905

BRIDLINGTON ELECTRICITY.

The Latest Phase of Municipal Activity at Bridlington is the Opening of New Electricity Works and Installation. The Only Town in the United Kingdom the Streets of which are Entirely Lit with Electric Light. Companies Ousted. A Glance at the Work Accomplished.

WITH the opening last Thursday of new electricity works, the pretty little Yorkshire sea-town of Bridlington has made an important addition to its municipal enterprises. The management of this new undertaking, the extension of "Prince's Parade," and the construction of new sea defences now proceeding, make fuller the hands of the Corporation—a body representing 14,500 inhabitants. Up to the present, ownership by the local authority has only been extended to the market rights, the water supply, sewage outfall works, and a cemetery. The Royal Prince's Parade, adjoining the sea, has been lighted fifteen years by electricity, supplied from plant on the premises.

The new works, the appearance of which is shown by our illustrations, have been under construction about twelve months, but the inception of the movement for their erection dates back to the summer of 1899, when communications were received by the then Urban District Council from several companies, which saw the possibilities of the district from a dividend point of view, and which were desirous of obtaining an electricity order for the district.

With Yorkshire shrewdness the councillors decided to get the provisional order themselves, the desirability of which was strongly put by one of their members, Mr. W. C. Townsend, the chairman of the Electric Lighting Committee. The report of Mr. F. H. Medhurst (of the firm of Messrs. Medhurst, Page, and Lloyd, of London and Manchester), who was called in, strengthened their previous convictions, and the Bridlington Electric Lighting Order was duly confirmed.

But it was not until 1902 that it was resolved to proceed with the construction of the works. Mr. Medhurst was appointed Consulting Engineer, and requested to prepare plans and specifications for a scheme of both public and private lighting on the three-wire, low pressure system, with a pressure of 220 volts at consumers' terminals. Tenders were invited in March, 1903, and provisionally accepted. A pause of seven or eight months then ensued before the Local Government Board inquiry was held.

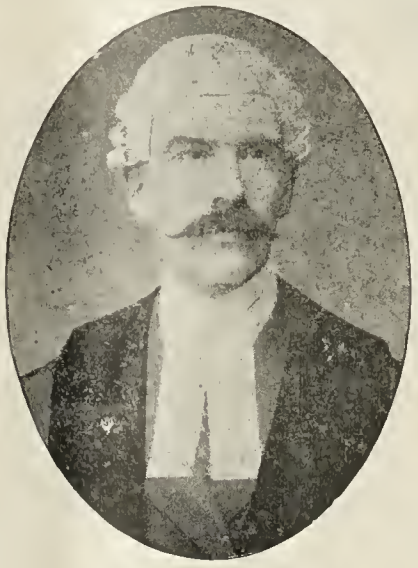
THE ROYAL PRINCE'S PARADE, BRIDLINGTON.

The sanction of the Department to the borrowing of £26,481 was received early in 1904, and the estimates of expenditure have proved practically correct.

The new buildings, designed by the Borough Surveyor (Mr. Ernest R. Matthews) are well worth a visit. Their general appearance and arrangement are distinctly good. Red Armitage bricks have been used in construction, and the exterior is ornamented with string courses and window mouldings of Robin Hood stone. Considerable attention has been given to lighting and ventilation. Large windows, with semi-circular heads and hopper ventilators, are fitted throughout, in addition to ventilators in the roofs. The boiler-house and engine-room have temporary ends of galvanised iron, so that the buildings can be readily extended, an ample space for this purpose being available on the site. The chimney shaft, 130ft. in height above the ground level, is a massive octagonal structure with a square base. The shaft is built on a block of concrete 23ft. square and 8ft. thick, reinforced with steel girders. The internal diameter is 7ft.

The steam-raising plant comprises two Lancashire boilers. Each

MR. J. V. MAINPRIZE
(Chairman of the Electricity Committee).



MR. A. E. MATTHEWMAN
(Town Clerk).

MR. E. R. MATTHEWS, A.M.I.C.E.
(Borough Surveyor).

MR. A. J. BECKETT
(Borough Electrical Engineer).

boiler is 7ft. 6in. in diameter and 30ft. in length, and is capable of supplying steam for both the steam dynamos.

The boiler feed pumps are vertical compound Hall pumps, each designed to deliver 2,000 gallons of water per hour against a pressure of 150lbs. per square inch. The exhaust steam from these pumps is taken to the feed-water heater. The pipe system has been arranged so that steam can be supplied to either or both the steam dynamos from either boiler; the steam pipes are of mild steel, with welded flanges. The valves on the steam and feed-pipe systems are made by Templer and Ranoe and J. Blakeborough and Sons. A Boby-Chevalet feed-water heater and softener, or detartariser, has been installed to reduce the hardness of 1,500 gallons of water per hour from 20 or more degrees to 4deg. of total hardness, and to raise its temperature at the same time to boiling point.

The engine-room is 36ft. in length, 32ft. in width, and 25ft. to the springing of the roof, and presents a fine appearance. The walls are faced with glazed bricks to a height of 18ft.; the dado is of chocolate-coloured bricks, and is 6ft. in height. The walls above the glazed work are rendered with Parian cement, and colourwashed. Mellowes glazing has been used in the roof, and the sashes in the lantern lights are controlled from the floor level. The floor is paved with Staffordshire encaustic tiles. A 10-ton overhead travelling crane, supplied by Marshall, Fleming, and Jack, spans the room, and the electrical equipment consists of two 100-kw. Allen-Johnson and Phillips steam dynamos, with the usual accessories. The engines, each of 160-h.p., are of the double-acting vertical compound enclosed type, with forced lubrication, and their speed is 475 revolutions per minute. The dynamos are each capable of supplying some 4,000 lamps of 8-c.p.

There are four balancing sets, having a speed of 1,000 revolutions, the duty of which is to regulate the electrical pressure on each side of the system of mains, and to assist in charging the storage battery.

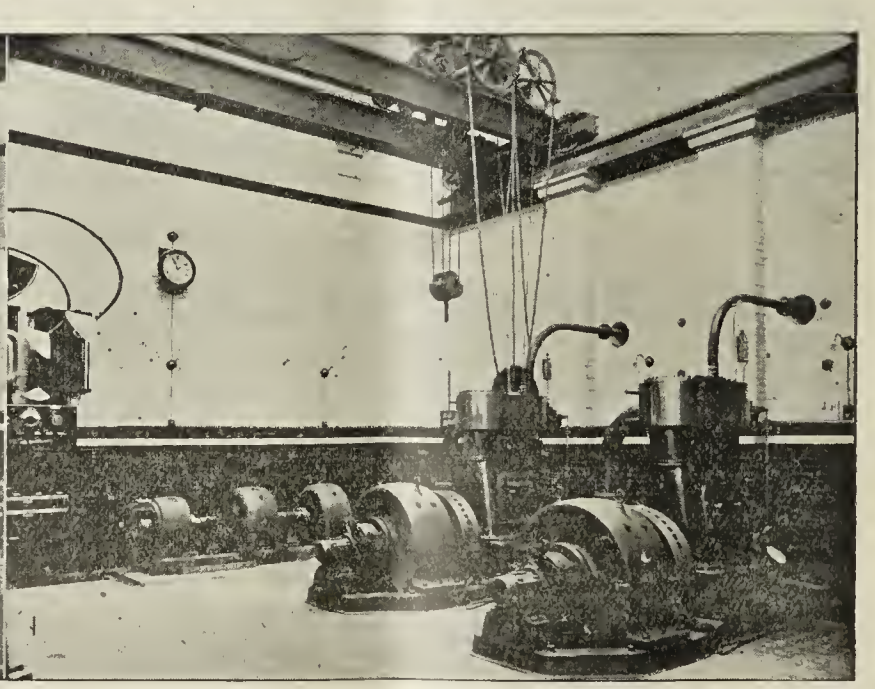
The switchboard is built up of polished slate panels fixed to a metal frame, and is of neat and substantial design. It is equipped with the usual regulating and measuring instruments, and is of fireproof construction. Bare copper connections run from the board to the storage battery. The main cables to the town and to the dynamos are brought to alternate copper bars on this board, so that any cable can be connected to either dynamo. A smaller switchboard for controlling the street lamps and the lighting of the works is placed near the balancing set.

The method of controlling the street-lighting is unique. The whole of the current is switched on from the station by means of six small switches on the works board, which in their turn operate long-range switches in various parts of the town. This arrangement obviates the necessity for a man to go round the town and switch on the lights. It is now claimed for Bridlington that it is the only town in the United Kingdom whose streets are entirely lit with electric light. There are 32 arc lamps (1,000-c.p.), 15 Nernst lamps (150-c.p.), 85 incandescent (32-c.p.), 197 incandescent (25-c.p.), and 113 incandescent (16-c.p.) lamps, which in all represent 43,703 candle-power.

The popular Mayor (Mr. C. E. Field), who performed the inaugural ceremony, and Corporation are to be congratulated upon the successful carrying out of this enterprise. The borough is fortunate in its Electricity Committee, which has throughout laboured hard for the success of the scheme, under the guidance of its energetic chairman (Councillor J. V. Mainprize). The town clerk (Mr. A. E. Matthewman, B.A., LL.B.), and the borough engineer (Mr. E. R. Matthews, A.M.I.C.E.), have thrown themselves energetically into the project, while the consulting engineers have spared no pains to produce successful works. Mr. Matthewman, it may be mentioned, was appointed Town Clerk of Bridlington in April, 1900, having been previously assistant solicitor in the Town Clerk's office, Leeds. The first holder of the position of borough electrical engineer is Mr. Arthur J. Beckett, who acted as clerk of works during construction. The chief contractors are: Building and chimney shaft—Messrs. G. Storr and Son, Bridlington; boilers—Messrs. Clayton, Son, and Co., Limited; steam pipes, etc.—Messrs. John Spencer, Limited; steam dynamos, balancer booster, switchboard—Messrs. Johnson and Phillips; storage battery—The Electrical Power Storage Company, Limited; mains—The Anchor Cable Company, Limited; lamp-posts and fittings—The British Prism Globe Electrical Company, Limited.

The key with which the Mayor opened the new buildings, presented at the ceremony by the Town Clerk, was of solid, hall-marked gold, beautifully designed, and bearing an inscription. The ceremony of switching on the light was performed by Councillor J. V. Mainprize, and Alderman Johnson and Councillor Andrew started the engines. In connection with the opening, Mr. F. H. Medhurst prepared an interesting souvenir, and gave a banquet to the members of the Corporation and others.

SWITCHBOARD.



DYNAMOS.

A YEAR OF TRAMWAYS.

The Latest Board of Trade Tramway Returns show that by far the Greater Proportion of the Development in Tramway Enterprise must be Placed to the Credit of the Municipalities. New Features in the Returns and a Strong Objection. Private and Public Undertakings Not Published Separately. Reserve, Depreciation and Renewals: Facts which Silence Opponents.

THE Tramway Returns for 1903-4 point with force and clearness in every detail the arguments for the municipal position urged by Sir Charles Petrie in our last issue. The paramount features in this branch of communal service, when contrasted with that in private hands, are identical with those which stand forth in relation to gas supply—more economical operation, more efficient meeting of public needs, and cheaper rates to users. The improved form of the Returns emphasises these features, and is, therefore, to be welcomed as a step in the right direction by the Board of Trade. The increasing adoption of electric methods of traction is the chief cause of this change, and the new tables exhibit in much greater detail the distribution of capital outlay, the items of receipt and expenditure, and the allocation of net revenue. Light railways which run on roads are also included for the first time. The period for which the accounts are made up has likewise been altered, and now, instead of finishing on June 30, the figures will be, as in the case of gas undertakings, for the calendar year as regards companies and for the twelve months ending March 31 as regards local authorities. The present statistics, therefore, relate to 1903 and 1903-4, and for that reason do not permit of a comparison, except in some details, with those in the preceding Returns, which were made up principally to June 30, 1903. The only objection that can be raised against the revised Returns—but that objection is a very strong one—is that the statistics of private and public undertakings are not published separately, as is the case, for instance, with the Gas Returns. It is astonishing that when occasion arose for recasting the form of the Returns, it was not thought expedient to also make this elementary division. It is, of course, absolutely necessary to effect such a division in order to see with advantage the relative results of company and municipal undertakings, and though we have, as usual, in our summary made this separation, it is none the less desirable, in the interests of public knowledge, that the division should be made in the official publication.

Creditable to Municipalities.

The capital now invested in street transportation systems, according to the new Returns, amounts to £46,451,444, as compared with £41,656,597 given in the previous Returns. This is an increase of over 11 per cent. in say seven and a half months, as against a gain of 32 per cent. in the preceding year. The distribution of private and public capital is as follows:

LOCAL AUTHORITIES.

	At March 31, 1904.	At June 30, 1903.	Increase.
	£	£	£
England and Wales...	23,649,465	20,048,633	3,600,832
Scotland	4,337,674	4,211,935	125,739
Ireland	73,385	73,385	—
Total	28,060,524	24,333,953	3,726,571

COMPANIES.

	At Dec. 31, 1903.	At June 30, 1903.	Increase.
	£	£	£
England and Wales...	14,710,639	13,804,111	906,528
Scotland	885,513	738,331	147,182
Ireland	2,794,768	2,780,202	14,566
Total	18,390,920	17,322,644	1,068,276

Statistical Summary.

The company increase has been at the rate of 6 per cent., whilst the municipal gain has been at the rate of 15 per cent. There is, of course, apart from this, ample proof that by far the greater proportion of the development in tramway enterprise must be placed to the credit of the municipalities. In 1902-3, the latest financial year for which returns are available, £5,115,838 was raised in loans for tramway purposes, as against £5,997,031 in the preceding term, and statutory powers were obtained for the expenditure of at least £881,711. Proceeding now to an analysis of the latest Returns, we append our usual statistical summary, the figures of local authorities being separated from those of companies:

LOCAL AUTHORITIES.

ENGLAND AND WALES.

1903-4.

	Number.
Undertakings owned	151
	£
Total capital outlay	23,649,465
	Miles.
Lines open	987
	£
Cost per mile	23,961
	Number.
Undertakings worked	94
	£
Capital outlay	21,196,114
	Miles.
Track operated	867
	£
Receipts	4,449,501
Expenditure	2,919,630
	Per cent.
Ratio to income	66·52
	£
Nett revenue	1,504,871
	Per cent.
Equivalent return on capital	7
	Miles.
Car distance run	106,922,247
	d.
Nett revenue per car mile	3·38
	£
Nett revenue per track mile	1,736
	Number.
Passengers carried...	971,994,000
	d.
Average fare per passenger	1·08

SCOTLAND.

	Number.
Undertakings owned	10
	£
Total capital outlay	4,337,674
	Miles.
Lines open	153
	£
Cost per mile	28,351
	Number.
Undertakings worked	7
	£
Capital outlay	2,936,368
	Miles.
Track operated	126
	£
Receipts	862,466
Expenditure	443,265
	Per cent.
Ratio to income	51·39
	£
Nett revenue	419,201
	Per cent
Equivalent return on capital	14¼
	Miles.
Car distance run	19,366,790
	d.
Nett revenue per car mile	5·19
	£
Nett revenue per track mile	3,327
	Number.
Passengers carried	222,788,762
	d.
Average fare per passenger	0 92

IRELAND.

	Number.
Undertakings owned	1
	£
Total capital outlay	73,385
	Miles.
Lines open	8
	£
Cost per mile	9,173

No undertakings municipally worked.

UNITED KINGDOM.

	Number.
Undertakings owned	162
	£
Total capital outlay	28,060,524
	Miles.
Lines open	1,148
	£
Cost per mile	24,425
	Number.
Undertakings worked	101
	£
Capital outlay	24,132,482
	Miles.
Track operated	993
	£
Receipts	5,356,967
Expenditure	3,432,895
	Per cent.
Ratio to income	64·08
	£
Nett revenue	1,924,072
	Per cent.
Equivalent return on capital	8
	Miles.
Car distance run	126,289,037
	d.
Nett revenue per car mile	3·66
	£
Nett revenue per track mile	1,938
	Number.
Passengers carried	1,194,782,762
	d.
Average fare per passenger	1·05

COMPANIES.

ENGLAND AND WALES.

	Number.
Undertakings owned	119
	£
Total capital outlay	14,710,639
	Miles.
Lines open	511
	£
Cost per mile	28,788
	Number.
Undertakings worked	88
	£
Capital outlay	16,564,540
	Miles.
Track operated	628
	£
Receipts	2,479,772
Expenditure	1,781,856
	Per cent.
Ratio to income	71·85
	£
Nett revenue	697,916
	Per cent.
Equivalent return on capital	4¼
	Miles.
Car distance run	49,950,577
	d.
Nett revenue per car mile	3·35
	£
Nett revenue per track mile	1,111
	Number.
Passengers carried	453,333,430
	d.
Average fare per passenger	1·24

SCOTLAND.

	Number.
Undertakings owned	13
	£
Total capital outlay	885,513
	Miles.
Lines open	26
	£
Cost per mile	34,058
	Number.
Undertakings worked	9
	£
Capital outlay	2,251,103
	Miles.
Track operated	53
	£
Receipts	301,295
Expenditure	183,306
	Per cent.
Ratio to income	60·84
	£
Nett revenue	117,989
	Per cent.
Equivalent return on capital	5¼
	Miles.
Car distance run	7,113,032
	d.
Nett revenue per car mile	3·98
	£
Nett revenue per track mile	2,226
	Number.
Passengers carried..	64,308,006
	d.
Average fare per passenger	1·10

IRELAND.

	Number.
Undertakings owned	18
	£
Total capital outlay	2,794,768
	Miles.
Lines open	155
	£
Cost per mile	18,031
	Number.
Undertakings worked	18
	£
Capital outlay	2,757,637
	Miles.
Track operated	158
	£
Receipts	466,850
Expenditure	294,717
	Per cent.
Ratio to income	63·13
	£
Nett revenue	172,133
	Per cent.
Equivalent return on capital	6¼
	Miles.
Car distance run	11,548,621
	d.
Nett revenue per car mile	3·58
	£
Nett revenue per track mile	1,089
	Number.
Passengers carried	86,918,475
	d.
Average fare per passenger	1·23

UNITED KINGDOM.

	Number.
Undertakings owned	150
	£
Total capital outlay	18,390,920
	Miles.
Lines open	692
	£
Cost per mile	26,576
	Number.
Undertakings worked	113
	£
Capital outlay	21,573,280
	Miles.
Track operated	839
	£
Receipts	3,247,917
Expenditure	2,259,879

	Per cent.
Ratio to income	69·58
	£
Nett revenue.	988,038
	Per cent.
Equivalent return on capital	4½
	Miles.
Car distance run	68,612,290
	d.
Nett revenue per car mile	3·45
	£
Nett revenue per track mile	1,178
	Number.
Passengers carried	604,559,911
	d.
Average fare per passenger	1·23

Economy in Municipal Working.

About twenty undertakings have been added to the number of those owned and worked by local authorites, amongst the new systems being those of the Burton-upon-Trent, Devonport, Exeter, Gloucester, Ipswich, Lowestoft, and West Ham corporations, and the Barking, Bexley, Denton, Droylsden, Heaton Norris, Failsworth, Levenshulme, Lees, Swinton, and Pendlebury, and Cheadle and Gatley Urban District Councils. Ireland is still unrepresented municipally; but this reproach will be redeemed in the next Returns, as the Belfast Corporation expropriated the company system in that city at the beginning of this year. The lines of local authorities, despite the lower fares charged, earn almost double on capital what those operated by companies do, and build some £2,000 per track mile cheaper. The greater economy in municipal working, notwithstanding the more generous treatment of employees, and other factors that tell adversely in a comparison with private management, is shown by the ratio of costs to income, which is 5½ per cent. less than in the case of the companies.

One of the additional features in the new Returns are the columns showing the allocation of net revenue, including the grants made in aid of rates by the local authorities. The total of these grants in 1903-4 was £207,087, representing to the localities concerned a relief equal to 2⅝d. in the £. The principal transfers, with the equivalent rates, were the following:

Authority.	Amount.	Equivalent Rate.
	£	d.
Leeds	52,000	7¾
Manchester	50,000	3½
Liverpool	27,171	1¾
Glasgow	25,000	1¼
Nottingham	13,000	3¼
Salford	12,000	3¼
Hull	11,500	3¼

Company Theory and Company Practice.

Another point of interest developed by the amended Returns are the sums put by for reserve, depreciation, renewals, &c. We have heard so much about this aspect of the case from anti-municipalists that it is worth while once more comparing company theory with company practice. The total hypothecated under this head is £613,645, of which £479,430 must be placed to the credit of local authorities, and £134,215 to the credit of private undertakings. The former represents 3⅜ per cent. on the capital expended; but the latter only a beggarly 1½ per cent., and, besides this, it must be remembered that the municipalities repaid capital to the extent of £467,748, whereas the company provision in that respect was practically nil—£14,018 to be precise, £11,249 of which was by the lessee company of the St. Helen's lines, in respect of the tramway debt of that corporation. So much for the theoretical love of the anti-municipalists for reserve and depreciation!

Progress.

The progress of electrification is more pronounced than ever in the present Returns, and, notwithstanding the very short period that separates it from its predecessor, an advance of nearly 27½ per cent. is shown in the mileage of systems electrically operated. The comparison is worth setting out in more detail:

	At 31 Dec., 1903, or 31 Mar., 1904.	At 30 June, 1903.
	Miles.	Miles.
Electric ...	1,462 ...	1,258½
Steam	108¾	140¾
Cable	30	30
Gas ...	4 ...	9½
Horse	235½	333¾
Total	1,840	1,772

THE ENLARGED "M. J."

More Congratulations from our Readers.

EARL BEAUCHAMP.

My experience of municipal affairs has taught me the value of a publication devoted chiefly to these interests. Allow me, therefore, to congratulate you upon the enlargement, and to wish you an extended influence.

MR. WILL CROOKS, M.P.

I am indeed glad to know you intend to enlarge your very helpful journal.

For the thirteen years I have read it—as London, and since as the Municipal Journal—and not only myself, but very many men who are called upon to adminster municipal affairs, have to thank you for enabling us to understand what that work ought to be in the widest sense, and to get a grip of other distant towns' ideas of administration as well as our own.

May your usefulness increase.

MR. J. WILLIAMS BENN, M.P.
Chairman London County Council.

May I congratulate you on your enlargement of the Municipal Journal which I consider a model publication of its kind.

MR. T. McKINNON WOOD, L.C.C.

Having been a constant reader of the Municipal Journal from its first number, I am very glad to hear that you intend enlarging your publication.

Every sign of increased interest in the important work of Local Government is encouraging to those who are giving their time to such work.

The Municipal Journal has been of the greatest service in furnishing a constant supply of useful information in regard to all branches of municipal work throughout the country; and I think it is generally recognised that its criticism has been exceedingly able and well-informed. It has been invariably a force for progress.

MR. GEO. WM. BAILEY,
Town Clerk of Bournemouth.

I congratulate you on the enlargement of the Municipal Journal, and on the decision to proceed on lines of extending your present features and introducing new ones. I have been a subscriber for many years, and have always appreciated the publication as a most strenuous supporter of municipalisation according to the best principles. I have not always been in complete agreement with the views expressed, but perhaps this is not remarkable, seeing that you may be said to look on things from without; whereas I have looked at things from within. Believing your purpose to be right, I am not disposed to quarrel with seemingly occasional lapses from sound argument.

Municipal government would be the better for a wider interest being taken in it, and the opponents of it would have less to say if they knew more about it. Such publications as yours are calculated to disseminate information of a useful character in this direction, and are therefore to be encouraged. Even if it be admitted that your advocacy of "Municipal Trading," for example, inclines to be unduly strong, are there not plenty of extravagant opponents to combat?

When I first became a reader of your Journal, I thought that there was little necessity for much that you had to say on the subject, but since I have learnt more of the tactics adopted by those you oppose, I am prepared to give you any amount of latitude.

MR. A. GORING PRITCHARD,
Secretary Association of Municipal Corporations.

I congratulate you on the past successes of your Journal, and am pleased to hear of the enlargement of the publication. I have found it most useful, and the articles and information accurate and interesting. I wish you every success.

MR. PERCY ALDEN.

I am very glad to hear the good news that the Municipal Journal is enlarged to thirty-six pages. I cannot help feeling that it has discharged a very important function during the last few years in keeping the public informed of the many developments of local government which have taken place, and especially in the evidence which it has placed before its readers of the success which has attended many forms of municipal enterprise.

Personally, I may state that the journal has been of the utmost value to me, and I believe the time to be not far distant when every statesman worthy of the name, and certainly everyone who is interested in local government, will have to study the pages of your valuable paper.

MR. ROBERT BLATCHFORD.

I congratulate you on the good work the Municipal Journal has done. It is most desirable that all citizens should take an interest in municipal affairs, and such a journal as yours, besides awakening our people to the duty of citizenship, provides a fund of invaluable information and statistics.

MR. P. B. MOODIE,
Winner of First "Audit" Prize.

I trust that the Municipal Journal, in its enlarged form, may have an ever-widening sphere of usefulness. I have read it continuously with much pleasure—and consequently with much profit—for some years.

Your cheque for twenty-five guineas—although a handsome payment for my small contribution to the discussion of the Municipal Audit problem—is, indeed, the tangible realisation of but a small fraction of the profit I have derived from the perusal of its pages.

MR. F. C. LLOYD.
Town Clerk of Croydon.

As I regard the Municipal Journal as a valuable and increasing storehouse of knowledge, for everyone engaged in local government work, my hearty good wishes for its continued success very cordially accompany the movement for the enlargement of the journal.

MR. JOHNSTONE WRIGHT.
Newcastle-on-Tyne.

I am delighted with the enlargement of the Municipal Journal, and congratulate you upon the result of your enterprise.

I think you might have charged 3d. for it without any complaint from your subscribers, as it is undoubtedly the best weekly journal on municipal matters—indeed, it is indispensable to members of councils who wish to be *au fait* with municipal work.

MR. F. H. BENTHAM.
Chairman Bradford Board of Guardians.

I can add my testimony to the value of your Journal. I always read your "Poor Law Notes" with interest, and I appreciate the fairness with which you present the different views of Poor Law administration.

It being highly probable that more attention will be paid to the problem of poverty in the future, any increase of space which you may be able to give will, I am sure, be of great service to those who are actively engaged in administrative work, and the public generally.

The second of a series of Bohemian concerts, held under the auspices of the Willesden Council Officials' Club, took place last Friday night, in Harvist-road Council School. Dr. Butler, Medical Officer of Health, president of the club, occupied the chair, and was supported by the Hon. W. R. W. Peel, M.P., and Mr. James-Gibb, the Conservative and Liberal candidates respectively for the Harrow Division of Middlesex, and many of the councillors and prominent citizens. There was a large attendance, and an excellent programme of vocal and instrumental music was much appreciated by the audience.

OUR PRIZE ESSAY.

Mr. Moodie's Striking Paper in the "Municipl Andit" Competition. Unanswerable Reasons Why Municipal Andit Reform Should Come by Local Authorities and not by Parliament. Standardising Andit and Accounts by Setting Out Terms of Certification. Strong Stand for District Andit System (as Modified) as Against the Principle of a Centrally Appointed Staff.

THE restricted limits assigned to us make it imperative to plunge *in medias res* without preamble. We have to suggest the broad lines of legislative reform, and to discuss by the way certain questions connected with the finance of Municipal Trading which are now the subject of controversy. We take for granted that the standardisation of municipal accounts (which is to be considered by a Departmental Committee) will stand in the forefront of any reform. Our subject may then be dealt with under the following heads:—

I.—Appointment and Status of Auditor.
II.—Powers and Duties of Auditor.
III.—Miscellaneous Questions connected with Sinking Fund, Depreciation, etc., etc.

I.—APPOINTMENT AND STATUS OF AUDITOR.

The controversy under this head turns upon the question how far should the central authority have a voice in the appointment and direction of borough auditors. Three cases, with varying degrees of central control, may be distinguished—

(a) In which the audit would be performed by professional accountants selected by the several Corporations, the appointees being subject to approval by the central authority, and having a prescribed tenure (not exceeding five years), during which they may only be removed by the Corporations with consent of the central authority.
(b) In which the audit would be performed by professional accountants selected by the central authority on a limited tenure, the Corporations having no voice in the selection. This is the method established for Scottish burghs by the Town Councils (Scotland) Act, 1900, under which the appointments are made annually.
(c) In which the audit would be performed by official auditors appointed, with permanent tenure, by the central authority, and giving their whole time to the work (an extension of the existing district audit system).

Appointments Made by Corporations.

Of these three methods of appointment only the first and the third were considered by the Municipal Trading Committee (1903). The first was strenuously advocated—the third as strenuously opposed—by witnesses representing the municipalities; and, in the end, the Committee adopted the municipal view that the appointments should be made by the Corporations, subject to approval by the Local Government Board, but they added the following important recommendation:—

> "The Scots' practice of appointing auditors from a distance, in preference to local men, to audit accounts of small burghs, should in similar cases be adopted in England."

This supplementary recommendation, admirable in itself, suggests two difficulties:—

(a) It seems to point, in the case at least of "small boroughs," to appointment by an *outside* authority. For, viewing the matter solely from the standpoint of the efficiency of the audit, it is not clear on what ground a local authority could claim to select its auditor in preference to (say) the central authority, where the auditor was chosen "from a distance."
(b) It does not indicate where the line should be drawn between the small and the not-small borough.

Scotland scarcely affords any guidance here—the rule as to appointing "from a distance" having been applied to *all* burghs for which the Secretary for Scotland was, in fact, empowered to appoint. These ranged from 80,000 population downwards.

Claims of District Audit Systems.

In view of this two-fold difficulty and of the existing position as to the education audit in boroughs, one cannot refrain from inquiring whether—notwithstanding the Joint Committee's condemnation of the district audit system and the obvious disinclination of the boroughs to come under it—an audit by suitably qualified official auditors, or, at least, by professional accountants selected by the L.G.B., does not after all offer the best solution of the problem. It seems clear, on a perusal of the evidence laid before the Joint Committee, that the criticisms levelled at the district audit system were directed against certain features of that system which may be regarded as capable of amelioration, (viz.: (1) inadequate accountancy training of auditors; (2) exercise of power of surcharge; (3) delay in completing audit) rather than against the principle of a centrally appointed staff, and it can scarcely be doubted that the retention of this principle—even on the modified lines of the Scottish scheme—will make for the general efficiency of the borough audit.

With a centrally appointed staff it becomes possible to group a number of boroughs under one auditor, and this—in addition to widening the auditor's knowledge and making him more expert in this class of work—at once facilitates the levelling up of the standard of accounting in all boroughs to that prevailing in the best conducted boroughs. For it would, of course, be an important part of the auditor's duty to carry the improved methods of one borough into the other boroughs in his district or group, and, if necessary, from his district into other districts where methods were less efficient. A second advantage would be that the making of the auditor *entirely* independent of the local authority would simultaneously tend to weaken the critics of municipal enterprise and to strengthen the credit of the local authority. Still a third advantage would be that, with accounts prepared in a prescribed form, and audited by a centrally appointed auditor, many, if not all, of the financial returns which local authorities are now required to furnish annually to the Local Government Board might be abolished.

Organisation of Expert Staff.

These will, it is hoped, be recognised as not unimportant advantages. Some of them could, no doubt, be more effectively attained by means of permanent official auditors giving their whole time to the work, but they would still be possible of attainment under a system of audit by professional accountants, whose selection and assignment to districts (*i.e.*, groups of boroughs) rested with the central authority. In choosing its men, the central authority might invite the aid of the presidents and Councils of the Accountant Societies—who would be in touch with local organisations of accountants—and in this way some guarantee would be obtained of the competency of the men selected. Further, the delay in completing the audit—which, it has been complained, is almost necessarily associated with the present official audit, and might possibly be urged against a system of grouping under professional auditors as suggested—could, it is thought, be entirely obviated, partly by a system of continuous audit (say, monthly or quarterly, according to circumstances), and partly by appointing special auditors for water, gas, electricity, and tramway undertakings—similar undertakings in different boroughs being grouped under one or more auditors, each of whom would thus become a specialist in his particular class of work. The dividing up of the audit among several auditors is already resorted to in large boroughs, and is undoubtedly a method of accelerating its completion; but, under the system now advocated, there would be the additional advantage to be derived from the organisation of an expert staff of auditors in relation to *each* class of trading undertakings, which would be an important reform in itself. The third objection urged against the official audit system—relating to the power of surcharge—will be dealt with in the next section of our essay.

II. POWERS AND DUTIES OF AUDITORS.

It is not probable that exception will be taken in any quarter to the first two recommendations of the Joint Committee under this head (Para. 17 (a) (b) of Report), regarding the auditor's right of access to all papers, books, etc., and as to his being entitled to call for all necessary explanations from officers of the local authority. Powers such as these may be regarded as essential to the efficiency of a municipal audit by whomsoever conducted.

When we turn, however, to the other recommendations under this head, some reason may be found for doubting whether the scope of the audit is set out in sufficiently explicit terms. Some leading accountants hold that a detailed code of instructions in relation to an audit is inadvisable, inasmuch as no code, however carefully framed, can anticipate all the points that may arise, and an auditor who gave effect to the express requirements of the code might not feel bound to report on important matters which fell outside it. Most of us are aware, however, that the term "correct" as applied to accounts has, in practice, considerable elasticity of meaning, the "certified correct" of one auditor, not infrequently covering a multitude of sins which another auditor would ruthlessly expose. It, therefore, seems expedient that we should endeavour to standardise our audit as well as our accounts by setting out in unmistakable terms the nature of the examination which a certificate of correctness will be taken to imply.

What "Correct" Should Imply.

The writer is of opinion that any enactment dealing with the question of municipal audit should provide that a certificate of correctness shall, in the absence of qualification, be taken to imply that the auditor has satisfied himself:—

(a) That the books and accounts audited by him furnish a correct record of the financial transactions of the year;
(b) That the accounts have been made up in accordance with the standard form;
(c) That the whole revenue and expenditure of the year has been brought into account;
(d) That all legal requirements in relation to the raising of monies for capital or revenue purposes have been duly observed (cases have come under the writer's notice where rates had been raised wholly from occupiers instead of equally from owners and occupiers, the accounts being, nevertheless, certified correct), and that all capital receipts have been appropriated to capital purposes;
(e) That all sums due to the Corporation, e.g., rates, rents, etc., etc., have been fully accounted for, and that where any sums are written off as irrecoverable or abatements allowed, this has been done under proper authority;
(f) That all the recorded expenditure is within the legal powers of the Corporation, and that all payments have been duly authorised by minute of the Corporation or in other regular form before being made;
(g) That all expenditure has been correctly allocated as between capital and revenue;
(h) That all provisions regarding redemption of debt (including upkeep of sinking funds) have been complied with;

(i) That all proper charges against the revenues of each trading undertaking have been duly debited before closing the accounts of the undertaking for the year; that the accounts show the true position of the undertaking; and that the surplus or deficiency at the end of the year has been dealt with according to law;

(j) That all securities relating to corporation property and invested funds are in order;

(k) That the aggregate balance-sheet is correctly stated.

Reform of Surcharge.

The foregoing requirements may be considered sufficiently comprehensive, but, partly to meet the criticisms of the leading accountants before alluded to, and partly for other reasons, the auditor should also be required to report:—

(a) As to the provision (if any) made from the revenues of each trading undertaking conducted by the Corporation for depreciation, indicating his opinion of the adequacy thereof—having regard to statutory requirements. The auditor's powers in this connection will be dealt with in more detail later.

(b) As to any other matter—whether coming within his certificate or not—to which he may deem it necessary to direct the attention of the Corporation as bearing on the efficient conduct of the finances of the borough.

On the important question of surcharge, the writer is in general agreement with the Joint Committee. Technically illegal expenditure, where it does occur, is usually insignificant in amount relatively to the total expenditure of the local authority, and not infrequently has a basis of practical wisdom. Let it be the duty of the auditor to draw attention to it, leaving the ratepayer, if need be, to take action either by proceedings at law, or by lifting up his voice at election times where there is any indication of abuse. It is more probably in the direction of enforcing regular compliance with statutory requirements as to debt redemption and such like obligations—where intervention would rather be in the interest of posterity than of the ratepayer of to-day—that a strengthening of the powers of the auditor or of the central authority may prove to be necessary in the case of certain authorities. But even here it is felt that publicity will almost certainly secure the end in view, as the credit of the borough would undoubtedly be affected if it failed to do its duty on the auditor drawing attention to a short-coming of the kind.

III.—MISCELLANEOUS QUESTIONS CONNECTED WITH DEPRECIATION, SINKING FUND, &c., &c.

Depreciation.—It will be convenient to approach these miscellaneous matters through the doorway of depreciation. This term may be simply defined as the shrinkage in value of an undertaking resulting from tear and wear. The meaning is sometimes widened to include shrinkage from other possible causes, but a clearer conception of the questions at issue will probably be obtained by strictly limiting the definition as proposed.

Wear and tear is an expense incidental to producing the commodity (gas), or rendering the service (trams) supplied by the undertaking, and must be charged annually against revenue just like wages or fuel or any other working expense. (The controverted question as to charging revenue with depreciation in addition to sinking fund will be dealt with later.)

Maintenance.—The making good of the defects arising from wear and tear, so as to maintain the undertaking in a state of efficiency, is appropriately termed "Maintenance." We may divide maintenance into:

(a) Ordinary repairs;

(b) Extraordinary repairs.

The former are the temporary repairs necessary from time to time during the 'working lives" of the several parts of an undertaking; the latter would usually be described as "renewals"—the reinstatement of the several parts when their working lives are done.

Line of Demarcation Between Depreciation and Maintenance.—Now, if every part of an undertaking had to be renewed annually, there would theoretically be a coincidence at the close of each year between the expenditure incurred for maintenance and the provision required for depreciation. But, as we know, some parts will run for five years, some for ten, and some longer, without requiring renewal. The result is that at the close of any year, after defraying all charges for maintenance (including ordinary repairs and the renewals actually falling due), we shall have certain parts of our undertaking that have run various fractions of their normal working lives—and so are partly worn out—for which provision to cover depreciation has still to be made. This indicates the line of demarcation between maintenance and depreciation.

How to Provide for Depreciation.—In our view, the best way to provide for depreciation is to charge all ordinary repairs directly to revenue account, and to carry annually from that account to a renewals fund such sums as will be sufficient, allowing for accumulation, to renew the several parts of the undertaking as and when they become worn out. The sums annually set aside must be based on the opinion of practical experts. It should be the duty of the consulting engineer (or other expert) in charge of the construction of the works to draw up some such schedule as this:

	Description of several sections of work. (1)	Capital expenditure. (2) £	Probable average annual cost of ordinary repairs (3) £	Estimated working life. (4) Years.	Probable average annual charge for renewals. (5) £
A					
B					
C					
D					
E					
F					

"A" might be buildings, "B" boilers, and so on, according to the nature of the works. The schedule might be submitted for confirmation to an independent engineer, chosen, let us say, by the president of the Institute of Water, Gas, or other engineers, as the case may be. Several such engineers might be nominated periodically (say every five years) in different districts, to confirm such schedules from local authorities within their districts for a moderate fee. It would be the duty of the auditor to see that the proper sums were set aside annually for renewals in accordance with this schedule. He might deal with an *error calculi* (*e.g.*, in Col. 5), or express an opinion as to the method of calculating the sums set aside, but that would be all. If after a certain number of years' experience there appeared to be grounds for supposing that the sums set aside had either been too liberally estimated or that (owing, possibly, to bad workmanship) they would probably prove inadequate, the question of revision of the schedule might be brought up at the instance either of the Corporation or the auditor—their respective views being put before the independent engineer for consideration. It will be noted that the "Probable Annual Cost of *ordinary* Repairs" is put in our schedule for comparison with the actual cost of such repairs as entered annually in revenue account, as the amount expended under this head might have an important bearing on the subsequent demands on the renewals fund.

Obsolescence.—But we have still (as hinted above) to reckon with the possibility of loss from causes other than the regular and calculable wastage of tear and wear. An undertaking may suffer from unforeseen disaster (fire, explosions, etc.), or it may be in whole or in part superseded by new inventions (usually spoken of as the risk of obsolescence), or it may suffer loss from mismanagement or other causes. These risks will be covered, when possible, by insurance, but for non-insurable risks some moderate provision, in addition to our depreciation fund, is no doubt required. Before considering how this extra provision should be made, let us look more particularly at the non-insurable risk described as obsolescence.

To take an instance—suppose that, owing to the progress of invention, the question of superseding a machine to which our schedule allots a working life of ten years comes up after five years. Obviously, our renewals fund cannot provide this charge, assuming, as we may, that the more advanced type of machine will cost more than the sum at credit of the fund for renewal of the superseded machine—even with the scrap value of that machine added. Should the undertaking be debited from the outset with a special charge to provide for such a contingency? In our view, this is unnecessary. The financial "pros" and "cons" of such supersession must be weighed when the matter comes up for consideration.

Municipal undertakings are monopolies. The local authority will therefore not be *compelled* to introduce the more advanced machinery by the competition of rival traders. If it decide to supersede the old machinery before it is half worn out, it will do so *voluntarily, and presumably on the ground that a financial benefit—or at any rate a benefit worth paying for—will accrue from the change*. Thus, it is not improbable that any immediate loss could be easily met—and quite properly met—by an increased charge on *future* revenues being spread over one or more years, according to circumstances. That disposes, we consider, in great degree of any apprehensions as to *partial* obsolescence. As for the possible contingency of entire obsolescence, that may be dealt with much on the same lines. The generation which decides to supersede calls the tune after full consideration of the facts, and it is perfectly reasonable that it should pay the piper. We all know, too, that supersession of this kind takes a long time. Gas is still very much alive, although threatened by its younger rival electricity for many years.

Sinking Fund.—We may conveniently, at this point, turn our attention to the sinking fund. We have made adequate provision for the repairs and renewals necessitated by ordinary tear and wear (*i.e.*, depreciation); we have presumed that insurable risks will be insured against in the usual way; we are left with the non-insurable risks, such as possible shifting of population by reason of a change in the industrial conditions of a district, a possible loss owing to obsolescence, and other speculative risks of the kind. All these non-insurable risks should, so to speak, be gathered into the sinking fund (*i.e.*, they should enter into the fixing of the period for repayment of loans raised for the undertaking). And they all are, in fact, so gathered in by the Local Government Board, being included in the "margin of safety" alluded to in Paragraph 33 of Select Committee Report on Local Loans (1902).

But the dominant element in fixing these loan periods is the "durability and continuing utility" of the works, and if we look at the calculation of the "equated period" at P.261 of the report just mentioned we see exactly what that means. We get here, in fact, a clear explanation of the controversy that has long been raging as to whether revenue should or should not be charged with depreciation in addition to sinking fund. Clearly, if we fix our loan period (as the L.G.B. does) with reference to the probable "working life" of the different parts of an undertaking, and if, at the same time, revenue is charged under name of depreciation with a sum sufficient to reinstate the works, etc., at the end of their estimated working life, it follows that our sinking fund and our depreciation fund overlap. We are, in fact, as regards the wearing out of the works safeguarding posterity twice over. If the contingency of wear and tear is provided for, as it certainly should be, by our depreciation fund, manifestly it ought to be eliminated in determining the repayment period of the loan.

Checking Extravagant Borrowing.

The elements entering into the loan period will then be the non-insurable risks already mentioned, *plus* the important consideration that each succeeding generation will have its own problems to face, and that every community should therefore aim at handing

on to its successors as small a heritage of debt as possible, so that they may not be handicapped by straitened financial circumstances in dealing with those problems. The sinking fund being the brake on the wheel of extravagant borrowing, care should undoubtedly be taken not to unduly weaken it; and, the financial effect of an extension of the loan period in adding enormously to the aggregate interest charge, while affording but a moderate amount of relief to the present ratepayers, should also be borne in mind. (See instructive tables in Select Committee Report above mentioned.) But when all is said, there is clear ground for granting some relaxation of present loan periods where these have been fixed on the principle adopted by the L.G.B., if the making of adequate provision for depreciation should be insisted on as part of an audit scheme.

Four Points.

Four points remain, which must be dealt with briefly:

Reserve Fund.—Our sinking fund and renewals fund being earmarked to specific services, there is a clear function for a reserve fund. In the life of every undertaking there is a risk of sudden strain on revenue resources owing to some unforeseen cause, when the existence of a moderate reserve will make all the difference between temporary dislocation of finances and a stable condition of things. This reserve might be limited to (say) 5 per cent. or 10 per cent. (*vide* usual provision in Electric Lighting Orders) of the capital expenditure, according to the nature of the undertaking.

Goodwill.—A payment for goodwill may be regarded as the price paid for the exclusive right to supply a commodity to a community, and for the business organisation taken over. An intangible asset—goodwill is not subject to depreciation as we have defined that term. It may *fluctuate* in value, and accountants differ as to how these fluctuations should be dealt with. The writer's view is that whatever may be the proper course as regards private undertakings, the question is not of real importance in municipal finance. Municipal undertakings, as already observed, are monopolies. There is no risk of consumers being charmed away by competing traders selling the same commodity. Nor is the introduction of a rival commodity to be feared.

A municipality which had taken over the gas supply would, if electricity were subsequently introduced, take care that the control should not be in the hands of a rival trader. Still less is it to be feared that consumers will give up gas or (say) tram-riding without adopting a substitute. Further, there is historical justification for the view that production of a particular commodity under a municipality will not be more costly than under a company, and that a contraction of profits is only likely to arise from a reduction of price to the consumer, and so does not involve a lowering of goodwill value. We thus reach the conclusion that nothing short of a shifting of population would diminish our goodwill value, and this risk has been already taken into account in fixing our loan period. All that seems necessary in the circumstances is to show the price paid for goodwill separately in the balance-sheet, and to indicate to what extent the corresponding loan liability has been reduced by the sinking fund.

Working Capital.—Working capital is simply the money required in any year to meet current requirements for wages, etc., prior to receipt of revenue. In Scotland this would usually be provided by means of a bank overdraft, which would be repaid before the close of the year on revenue coming in. But overdrafts are officially "barred" in England. Recourse must, therefore, be had, where necessary, to borrowing for this purpose in ordinary form. The question then arises—in what period shall this loan be redeemed? The L.G.B. gives ten years, but Parliament frequently allows longer under local Acts. Given an efficient audit, it is thought that the L.G.B. might reasonably extend the ten years. In effect, in redeeming a loan of the kind, the municipality is building up a *compulsory* reserve equal to the amount of the working capital. If this amount is large relatively to the construction capital, adherence to the ten years' rule may, when other debt obligations are taken into account, involve considerable hardship. For the money—if kept to its proper function—would always be in hand at the close of any financial year, being restored out of incoming revenue, and there is no obvious reason why, in such a case, ten years should be the redemption period in preference to the period allowed for the construction loan. The local authority would, of course, as we have already suggested, build up a reserve, as a matter of prudence, but that would be accumulated *at discretion* out of profits, and would be subordinated to the prime necessity of reducing the price to consumer where that appeared to be required for the development of the undertaking.

Appropriation of Profits.—In running a municipal undertaking, the first aim should be to supply the commodity (water, gas, &c., &c.) as cheaply as possible consistently with the highest efficiency, and a due regard for the welfare of employees. Certain benefits, including, possibly, an indirect financial benefit, will accrue to the ratepayers (as distinct from consumers) from the mere fact that the municipality controls these concerns. The claim of the ratepayer to a profit on the ground that he pledges his credit, and takes the risk of failure, does not appear to possess much force. In the earlier years of a new undertaking (e.g., electricity), drafts on the rates are practically inevitable, and recoupment of these would be a matter of legitimate concern when profits began to be earned. But the possibility of a deficiency coming on the rates after the paying point has been reached should be safeguarded against by a reserve, and not made a ground for meantime aiding the rates year by year out of profits earned by the undertaking. A legitimate claim may perhaps arise owing to the large capital obligations of the ratepayers for profit-earning enterprises tending to increase the difficulty of obtaining—and consequently the interest charged for—loans required for non-productive purposes. If, however, the ratepayers generally are consumers, the claim may be said to be fairly off-set by reducing the cost of the commodity.

But there is something to say on the other side. It is undoubtedly the case that the prospect of earning profits which would be applied in part at least—in aid of the rates, has in the past been frequently held out as an inducement to ratepayers to approve of the municipalisation of certain undertakings. In some cases, substantial relief—exceeding even a rate of 1s. per £—has been given for many years, and large works of local improvement have been undertaken in reliance on the continuance of this relief. If the expenditure thus provided for were placed on the rates, the existing grievance as to the inequitable incidence of the rates would be seriously aggravated.

Our conclusion is that Parliament should not intervene in the matter. The correct policy in any case should be left to the local authority. If the consumers are a small proportion of the ratepayers (e.g., in the earlier years of an electricity undertaking) we may take it that the local authority will feel obliged to apply any profits in reduction of price so as to encourage demand. If, on the other hand, the consumers constitute a large proportion of the ratepayers, the ordinary forces of local government will bring about a nadjustment of the question on a basis which will commend itself to the community.

THE Chairman of the Otley District Council intimated, at the meeting this week, that although the clause for the purchase of the gasworks, and that relating to the erection of an abattoir, had been struck out of the Parliamentary Bill, it was the intention of the Council to go forward with it, as by adopting that course they were serving the best interests of the ratepayers.

Mr. Duncan, the chairman of the waterworks Committee, stated that the new waterworks at Marsh Ghyll are progressing favourably, and that it is fully anticipated the work will come within the estimate of £95,000.

TELEPHONES PURCHASE.

Deputation from the Municipalities.

LORD STANLEY received at the House of Commons, on Monday, a deputation from municipalities owning and working telephones, who wished to show how the proposed purchase agreement between the Postmaster-General and the National Telephone Company affected them, and municipalities in which the National Telephone Company has at present a monopoly.

The Lord Provost of Glasgow introduced the deputation, whose arguments were set forth in a memorandum to this effect:—

1. That the partial purchase of the London system of the National Telephone Company, and the postponement of the purchase of its provincial systems, was to be deprecated, because it would enable the company to devote greater energy and capital towards crushing out the municipal telephone system in the provinces.

2. That their experience had proved that it was not essential for the telephone service to be conducted as a national monopoly, as from 97 to 98 per cent. of the total calls were local.

3. That the Post Office ought to administer the acquired National system in friendly competition with the licensed municipalities, and give greater encouragement to other municipalities to enter the field.

4. That in the event of the postponement of a settlement, the Post Office ought to enter into vigorous competition with the company throughout the kingdom, assisted by the co-operation of municipalities, in order to avoid the danger of an inflated price being forced upon the Government; and

5. With regard to the possibility of extending the company's licence, it would meet with strenuous opposition from the municipalities; it would prolong the existing unsatisfactory condition of telephone affairs in this country, enable the telephone monopoly to reach such gigantic proportions as ultimately to render a reasonable settlement of the question impossible, and create a menace to the commercial interests of the kingdom.

Lord Stanley, replying, said he was strongly of the opinion that the telephones should be nationalised, and he should be pleased to have another interview with the deputation to have this aspect of the question further developed.

FULHAM OFFICIALS DINE.

THE officials of the Fulham electricity undertaking held their second annual dinner at the King's Hall, Fulham, on the 3rd inst. Mr. A. J. Fuller, the chief engineer, took the chair, and about seventy members of the staff were present. A very enjoyable evening resulted, and it is interesting to notice that the whole of the musical programme was carried out by those in the Council's employ.

The chief toast of the evening was "The Undertaking," proposed by the Chairman, who said it was a pleasure to him to be able to record a steady increase in the output and revenue and a steady decrease in the cost of production, and these, he explained, had enabled the Council to sanction the reduction of the price for lighting current to 3½d. per unit, with a small discount, which he was sure, would induce further business.

With reference to the destructor, the Chairman said that by reason of its efficiency, it had become famous, and reminded his hearers that they destroy approximately 35,000 tons of refuse per annum in Fulham, at an average price, which was at least 10d. per ton cheaper than the best results obtained elsewhere.

This toast was replied to by Mr R. M. Prescott (Town Clerk) and Councillor A. J. Warner (Chairman of the Establishment Committee. Mr. G. T. Meek (Superintendent of the destructor) proposed the toast of the Chairman, which was enthusiastically received, with musical honours.

OFFICIAL AND PERSONAL.

NEW APPOINTMENTS AND RESIGNATIONS IN MUNICIPAL OFFICES.

WEST BROMWICH NEW DEPUTY TREASURER.
(Mr. Arthur Collins.)

Owing to the constant growth of the work of the borough treasurer's department at West Bromwich, it has been found necessary to create a new office—that of deputy-treasurer. Mr. Arthur Collins, chief audit clerk and assistant to the borough treasurer of Blackpool, has got the appointment, the salary to which is £200 per annum.

Mr. Collins is only twenty-five years of age.

His scholastic career has been one of continuous success. He was educated at the Bury Grammar School, to which he gained entrance by public scholarship. He holds eight honours Science and Art certificates; the honours certificate of the local examinations of the University of Cambridge; and a first-class certificate with distinction in book-keeping and commercial knowledge of the Union of Lancashire and Cheshire Institutes.

In addition to these qualifications, Mr.

MR. A. COLLINS
(West Bromwich New Deputy Treasurer).

Collins has qualified for the Associateship of the Society of Accountants and Auditors by passing all the examinations, and at the recent final examination of the Society in December last he passed in the honours division, securing the second place in the United Kingdom, and being awarded the Society's special prize. He also holds by examination the certificate of the Institute of Municipal Treasurers and Accountants awarded in 1903 for proficiency in municipal finance, accountancy and law, and in this examination was placed well towards the top of the list.

He is the author of "A Municipal Internal Audit," which is now placed on the official list of books recommended to students preparing for the examinations of the Municipal Treasurers' Institute. This is, we believe, a unique distinction for a man of twenty-five years of age. It also transpires that he is the "Municipal Accountant" who is the author of "Municipal Finance for Students," of which most favourable reviews have been lately appearing in the Press. He still finds time to be a frequent contributor of articles to the professional journals. His confrères at Blackpool have made him the recipient of a beautiful secretaire, and given him a hearty send-off on his leaving to take up his duties at West Bromwich about the end of this month.

He was chosen for the position out of about seventy applicants.

NEWCASTLE TRAMWAYS MANAGER.
Appointment of Mr. E. Hatton.

Mr. Ernest Hatton, who has just been appointed general manager of the Newcastle-upon-Tyne Corporation Tramways, has had wide experience of municipal tramways at Liverpool, Birkenhead, and Salford. It is from the latter town that he immediately hails, he having been general manager since the installation of the undertaking.

Mr. Hatton received his early engineering training at the works of Pearson and Knowles, Ltd., of Warrington, one of the largest engineering firms in the country, and whilst there assisted in the carrying out of extensive contract works. He left this firm to join the engineering staff of the Liverpool Corporation, and took an active part in the construction and equipment of the first portion of their splendid tramway system. Similar work requiring to be executed at Birkenhead, Mr. Hatton secured an appointment with that Corporation in a like capacity.

In 1899, the Salford Corporation having decided to take over from the lessees the tramway system then working, and electrify the same for operation on its own behalf, it became necessary to secure the services of a well-experienced man for this work, and from a large list of applicants Mr. Hatton was unanimously appointed to

MR. E. HATTON
(Newcastle New Tramway Manager).

the post. The conversion of the lines for electric traction was commenced prior to the expiration of the lease, and upon the transfer of the undertaking to the Corporation, the latter was so satisfied with the manner in which Mr. Hatton had carried out his duties and the energy and ability displayed by him, that he was appointed by the Council to the position of general manager of the new undertaking.

Over sixty miles of tramways have been constructed under his personal direction and supervision, and the overhead equipment erected. An extensive car depot, with accommodation for 180 cars, was built to Mr. Hatton's designs, and the whole of the rolling stock obtained under his supervision and to his specification and requirements. So rapidly has the Salford system developed, that the income of £90,000 for the first year's working has now increased to £210,000, and the operating expenses are second lowest in the country amongst all the principal tramway undertakings.

Mr. Hatton's great abilities will be well exercised on Newcastle's really first-class municipal system. He will doubtless make his mark and affect considerable improvement in the financial results.

BATTERSEA ELECTRICAL ENGINEER.
(Mr. W. A. Kemm, A.M.I.E.E.)

Mr. Wm. Augustus Kemm, A.M.I.E.E., has been appointed chief electrical engineer to the Battersea Borough Council out of sixty-three applications. For the last fourteen months, owing to the illness and resignation of Mr. Forbes Mackay, Mr. Kemm has been in sole charge of the Council's electrical undertaking, and since May, 1901, has been chief assistant and resident engineer to the Battersea Borough Council.

He was born at Clapham in 1874, and is the son of the late Mr. Robert Kemm, artist, whose pictures, especially on Spanish subjects, attained considerable popularity. He graduated at Haysman's University College, Hampstead, and "finished" his education at Grammont, Belgium, and the City and Guild Technical College, Finsbury. Mr. Kemm was engineer-in-charge and mechanical and electrical assistant at St. Pancras Borough Council from 1892 to 1898; and chief assistant engineer to the Canterbury Corporation from 1898 to 1901. His experience has been particularly wide in the system of supply in which he is engaged, and has been connected with municipal supply work for the past thirteen years.

The duties of electrical engineer to the Battersea Borough Council are not light. The plant in the large generating station, over which he has control, has a horse-power amounting to 3,000.

GLASGOW RESIGNATIONS.
Mr. W. A. Chamen.

Mr. W. A. Chamen, chief engineer and manager of the Glasgow Corporation's Electricity Department, has resigned his position in order to accept a post of responsibility with the well-known firm of consulting engineers, Messrs. Bramwell and

MR. W. A. KEMM
(Battersea New Electrical Engineer).

Harris, of London, Edinburgh, and Cardiff. When Mr. Chamen went to Glasgow the capital of the electricity department was £130,000, and now it is £300,000, or, to put it another way, the revenue which was then £45,000, is now £190,000.

Mr. William Ashcombe Chamen has held the position of electrical engineer to the Corporation of Glasgow since January 28, 1898. From his boyhood he has devoted himself to the engineering profession, and in particular to the electric branch of it. When seventeen years old, after being trained as a mechanical engineer at Plymouth, he entered the service of Messrs. Crompton and Co. (Limited), London, the well-known electricians. His connection with this firm, which extended over seventeen years, afforded him a wide experience both at home and abroad, including the laying of the electric machinery at the Forth Bridge works. From 1884 until his appointment in Glasgow Mr. Chamen was chief engineer to Messrs. Crompton. Latterly his salary from the Corporation was £1,000 a year.

Mr. Charles A. King.

Mr. Charles A. King, the permanent way engineer of the Glasgow Corporation Tramways, has resigned his position, and has accepted a similar post under Mr. John Young, manager of the Metropolitan District Railway. Mr. King has been in the service of Glasgow Corporation for five and a half years, and during that time has shown marked ability in the discharge of his duty. He is little over thirty years of age. Mr. King takes up his new duties under Mr. Young at an early date. His salary with the Corporation latterly was £400.

ELECTRICAL MONOPOLY MENACE.

Extensive Proposals by Power Companies that Embrace the Metropolis and Greater London. An Audacious Scheme that Must be Strenuously Resisted in the Public interests. Why Large Power Companies Fail, and Why this in Particular Should be Met by Opposition of Exceptional Strength.

THREE Bills are being promoted in Parliament this session with the object of creating huge electrical supply undertakings in London. The most audacious is "The Administrative County of London and District Electric Power Bill," which wants to have a roving commission all over Greater London. It is a scheme which all existing interests should unite in opposing, because—

1. The promises held out are illusive;
2. The company would not lower the price for current;
3. It would deprive local authorities of their power of veto;
4. No provision is made for purchase;
5. It would lead to a dangerous combination;
   (a) Because it would be a disturbing competitive factor, which
   (b) would lead to the various companies consolidating their interests (the company is seeking powers to purchase other undertakings, just as happened in the case of London water and gas companies).

When a public service is itself a natural monopoly, competition is wasteful, as it means the laying down of duplicate—and therefore unnecessary—plant, interest on which has to be paid by consumers. This County of London Company seeks power not only to supply authorised undertakings, but also to supply consumers direct with power and light.

The price which it proposes to charge is not so low as exists in many parts of London already.

Power Companies not Successful.

Practice and experience are against the company's scheme. The companies in London which are most successful are those whose areas are the most compact—such as the Kensington, the St. James's, the Westminster, and the Brompton. The London Company whose area is largest is the least successful.

None of the big power schemes are proving successful, with the exception of the Newcastle and Tyneside system, which has the advantage of cheap coal, and a large consumer in the North-Eastern Railway.

The other schemes which are working are far from encouraging. Take the County of Durham Power Distribution Company—one of the first. It was promoted in 1900, and started with the initial advantage of having lighting orders for Gateshead, Durham, and Jarrow. A twin concern, the Durham Electric Supply Company, passed on the current to the tramways in Gateshead. The last balance-sheet shows a miserable total of £7,500 receipts for the parent company, a dividend of 4 per cent., which was not justified, as the accumulated depreciation and reserve fund is an insignificant £626. The Power Supply Company paid 4 per cent. in 1902, 2 per cent. in 1903, and for the next half-year—the last for which accounts are issued—earned less than in the previous six months. It has not made adequate provision for depreciation and reserve. Durham and Jarrow have not yet got their tramways; Gateshead tramways have been running for several years. They pay a small dividend by sharing the undertaking.

Striking Comparison.

Sunderland, which has not had the boasted advantages of a big power company, obtains cheaper light and power and a better tramway service from the municipality. The contrast is striking, as the following figures relating to the tramways show:

	Gateshead Company.	Sunderland Corporation.
Average revenue per car mile	8·78d.	10·46d.
Percentage total cost to traffic receipts	73·95	58·10
Gross revenue	£47,600	£62,506 16 9
Gross profit	£12.292	£36,318 0 0
Dividend	£10.806	—
Depreciation and reserve	£2,000	—
Interest	—	£8,640 0 0
Sinking fund	—	£8,350 0 0
Depreciation	—	£5,360 0 0
Surplus	£200	£4,014 0 0

The capital of the Gateshead undertaking is £285,610; of the Sunderland, £276,710. Sunderland Corporation has a depreciation and sinking fund of £37,602, a reserve of £5,000, an accident fund of £1,118. The Gateshead Company has only a depreciation and reserve fund of £2,000. These significant figures are found in "Garcke's Electrical Manual." All the companies referred to are controlled by the B.E.T. Co.

A similar contrast to the disadvantage of the big supply company could be made with regard to the lighting of the two neighbouring towns.

Another power company—the Cleveland and Durham—has not yet made a start. Several of the colliery owners and manufacturers who first supported it found that they could make their own current cheaper than the power company could supply them.

The South Lancashire Electric Supply Company was another ambitious concern. It gave birth to a large traction company, and, we were told, had a promising field to exploit. It is now in liquidation.

Another company which promised great things was the North Metropolitan Electrical Power Distribution Company. It gave birth to the North Metropolitan Supply Company, and has a twin brother in the North Metropolitan Electric Tramways Company. It succeeded in exercising a demoralising influence on local affairs, and has captured the Willesden district. It scraped 2½ per cent. dividend together after surcharging its customers. It has kept back electric progress in North London for several years, as the local authorities, instead of having to fight it, would have promoted their own schemes.

The power schemes for which Acts have been obtained in other parts of the country have not yet been started, or are in initial stages. None of them are promising, and some are notoriously over-capitalised.

Promoters from Newcastle.

The only successful power company, as we have said, up to now is the Newcastle one, which has practically a monopoly in its district by arrangement with other companies. There is no comparison between it and the London company, except in one respect—the same people are promoting it. Dr. Spence Watson, Mr. J. H. Armstrong, Mr. J. H. B. Noble, and Sir Lindsay Wood, who are the promoters of the London company, are directors of the Newcastle one, and the same engineers are interested in both. The London company professes to be able to supply electricity over a huge area cheaper than the existing undertakings which fill the field well can do. It starts without lighting orders; it will be unable to supply power for tramways; it cannot get cheap coal. There is no factor of production or distribution in its favour. Now, the Newcastle Company holds a number of electric lighting orders; it has taken over the Walker and Wallsend Union Gas Company—which supplied electricity as well—it supplies the Great Eastern Railway stations and forty miles of electric line, and the Tyneside Tramways Company. Moreover, it covers a fairly compact area.

We think it improbable that the County of London Company will find favour with Parliament, but we would urge local authorities to exercise the utmost vigilance in opposing it. The same men are behind the scheme who made such a vigorous attempt to secure running powers over the Newcastle tramways last session. There will be a great deal of lobbying in the House of Commons in support of the Bill. The promoters include a number of prominent northern Liberals—including Sir James Joicey and Dr. Spence Watson. Dr. Watson has been chairman of the National Liberal Federation, and last session circularised Liberal members in favour of the tramway company which attempted to secure compulsory running powers over the Newcastle Municipal Tramways.

BARNSTAPLE ELECTRICITY WORKS.

SUCCESSFUL YEAR.

THE exceptionally good results attained by the Barnstaple Electricity Works in its second year of working are not at all surprising to us. Some time ago a party of experts viewed the station, and on all sides the opinion was expressed that although the buildings and machinery were substantial and of the best, yet the utmost economy and judgment had been exercised by the consulting engineer, Mr. W. H. Trentham, of Victoria-street, London. The Borough Council considers it has one of the most up-to-date stations in the Kingdom, which would appear to be borne out by the splendid record now obtained.

The Mayor, in his annual statement, says that the income for the year from electricity supplied was £3,540, this leaving a surplus, after paying expenses, of £1,582. The interest and repayments of capital expenditure were £1,290, leaving a nett profit of £291.

The Mayor congratulated the engineer upon the economical and satisfactory working of the station, and added, "I have heard it remarked by visitors over and over again that Barnstaple is one of the best, if not the best, lighted towns in the country."

To produce so good a result in such a comparatively small town—its population is only 15,000—must be gratifying to all concerned.

BRADFORD TRAMWAYS PARCEL SCHEME.

THE parcels scheme recently initiated by the tramways department of the Bradford Corporation is now in full swing, and business is increasing at a steady and satisfactory rate. Two splendid little motor-vans—the bodies of which were constructed in the Corporation's own workshop—afford a very quick means of collection and delivery in the centre of the city, and messenger boys serve all the out-districts.

A large number of the big firms have availed themselves of the cheap contract rates, while shopkeepers purchase tickets in large quantities, so that they can supply them to their customers at a cheap rate. Special arrangements have also been made for the benefit of Saturday night shoppers. The work of entering into agreements with other towns is proceeding apace.

A large dyeing traffic is already being done with Brighouse, and a system of sending parcels in bulk by rail to and from Halifax, Manchester, and other towns will soon be in operation, collection and delivery being effected by tramcar at each end.

At a meeting of Walsall Town Council on Monday next the General Purposes Committee will recommend that the salary of the medical officer of health (Dr. Wilson) be increased from £200 to £350, in consideration of his agreeing to devote his whole time to public duties.

MUNICIPAL MUTUAL INSURANCE.

A Wonderful Tale of How Municipal Authorities Have Fought a Dangerously Tyrannical Trust with its Own Weapons in the Interests of a Long-Suffering and Heavily-Plundered Public. After Less than Two Years' Work Seven and a Half Millions' Worth of Property is Insured. Headway Against Vested Interests and Illegal Commissions. Safeguards and Profits. Calumniators Apologise.

[FROM A CORRESPONDENT.]

THIS unique and most interesting experiment in municipal co-operation has, after nearly two years' work, reached a stage of development when the measure of success actually attained and its future prospects can be fairly gauged.

At first sight many might question the propriety of linking municipalities with any form of company enterprise which has in the past ten years caused a loss to the British public of £274,959,284 subscribed in cash, not to mention a large proportion of the £310,888,521 of vendors' share capital (largely unloaded on the public for cash) which was also lost in the same period, whilst we have yet to learn of the loss of a single pound of capital lent to municipal authorities in that time.

Eliminating Dangers and Evils.

But it must be admitted that the founders of this unique organisation have succeeded in eliminating from its constitution all the chief dangers and evils of company promotion and management with which the public is only too familiar. Formed without capital or shares, and no purchase moneys being payable, there was no plunder either in cash or "watered" capital to attract greedy promoters or voracious vendors; and as the trustees (who act as directors) are precluded from receiving fees, there was no opening for secret qualification money, shares for guinea-pig directors, or fees fixed in an inverse ratio to ability.

The strictest municipal practice applied to the drawing of cheques and receipt of money, fidelity guarantees required of officers, and a yearly audit by a municipal accountant of great experience (who devised and worked the most successful self-insurance scheme of the London School Board since 1878, and is independent of any of the insuring bodies), provide ample safeguards against leakages, whilst every detail of management is in the hands of the delegates of the insurers, who meet about once a month, deputing to three managing trustees the duty of attending daily at the offices to supervise business details, so that the evils of "one-man" management are avoided.

As the omnipotent Insurance Trust had captured a majority of the House of Commons, the effort of the L.C.C. in 1902 to get Parliamentary sanction to a Bill for a rate-aided scheme of insurance for itself and the London boroughs signally failed, an insurance M.P. warning the Council that its whole General Powers Bill would be wrecked if it dared to proceed with the insurance clauses. Thus no other alternative was open to the Shoreditch Conference than the line adopted, and the independent conferences of West Riding Boroughs at Bradford and of Southern Boroughs at Eastbourne subsequently confirmed this conclusion. A corporation can carry its own insurance, as the London School Board has done since 1878 by piling up a reserve fund out of premiums of £56,0000 (after payment of losses, which were only £4,750), such fund being now sufficient to insure schools of the value of ten millions sterling without any further premiums being charged, but it is not legally possible for several corporations to insure each other mutually except by the formation of a separate company.

A Bold But Safe Move.

The School Board experiment has shown that in twenty-five years the average premiums which would have been paid to insurance companies would have been £100,000, whilst the losses have been under £5,000, so that the actual fire loss would have been covered by 1-20th of the tariff premiums, or about 1d. per cent.! It was certainly a bold move of the thirteen pioneer authorities to register Municipal Mutual Insurance, Ltd., on March 13, 1903, with only £600,000 of property to insure for the first quarter, but the elasticity of its underwriting contracts enabled the concern to make itself just as secure by holding a small retention on each risk, as it is now, when the retention has been increased with the growth of premiums and reserve funds. Great care was taken in getting quotations from underwriters of the best standing, and the most satisfactory terms in every respect were those offered by the Central Insurance Company (the leading non-tariff company, with a capital and funds of a million), and its associated group of underwriters, whose total capital and funds were over a million, and whose loss ratio was the lowest in England in 1903, and a group of underwriters, whose total capital and funds exceed five millions, and who agreed to allow as rebate from the premiums paid to the Mutual Company a very substantial amount, so that a very large saving would have accrued if the whole of every property placed with the scheme had been underwritten in this "wholesale" way. To provide against the possibility of any losses sustained by the mutual on its own retentions being in excess of the reserve funds for the time being, a contingency policy—guaranteeing the reserve being always sufficient to cover any losses falling upon it—has been arranged by the trustees without further premium, thus securing absolute safety for the insuring bodies in every possible contingency.

Millions of Pounds' Worth of Property.

The result of the first fifteen months' business was surprisingly successful, the number of corporations joining the scheme having risen from thirteen to thirty-seven, whilst to-day it has risen to forty-eight. The premium income with commissions on boiler accident and other agency business amounted in the first balance-sheet to £4,097, whilst to-day it has reached the respectable sum of £8,733, and in the next midsummer balance-sheet, when the remaining two quarters of the Yorkshire authorities' insurances have been transferred to the company, the premiums are calculated to figure at £10,000 per annum, which is quite a sufficient base to get the full benefit of the law of insurance averages. The property insured has leapt from £600,000 for the first quarter to £4,000,000 at midsummer last, whilst to-day it is no less than £7,438,543, and at midsummer next will be at least £9,500,000.

The important item of management expenses worked out at less than 7½ per cent. of the nett premiums in the first balance-sheet, owing to the rigid economy practised by the trustees in every detail, and to the very modest rent at present paid for offices at the Shoreditch Town Hall. Compared with the average expense ratio of fire insurance companies, which is about 30 per cent. of the premiums, it will be seen that in this item alone an important saving of premiums must result to the scheme, as in the first year the work was very heavy and the business small.

Profit of 25 Per Cent. on Premiums.

The nett result of fifteen months' work was to earn a profit (subject to unexpired risks) of £1,096, equivalent to 25 per cent. of the premiums received—a substantial success much in excess of what the most sanguine of the trustees dared to expect. This reserve was wisely carried forward, and part of it invested in municipal loans (an interesting bye-product of the scheme), as with its assistance a larger proportion of each risk can be retained, and a larger profit can be earned in the future. The losses by fire in the first fifteen months were only £25, of which only £1 15s. 2d. fell upon the company's funds, but owing to the heavy loss at Shoreditch Town Hall—not likely to be exceeded in ten years—and to one at Bradford of £203, where the risk had not been underwritten at all, the total losses for a month short of two years have been £557 12s. 8d., falling on the company's funds.

The remarkable result of judicious underwriting was never better illustrated than by the seemingly paradoxical statement that the Mutual Company in the first eighteen months of its career had an income of £4,576, paid fire losses of £6,525, and yet made a profit of over £1,300, which goes to show that the "amateur" managers of the Mutual know just a little about insurance finance.

Local Authorities Note!

The main difficulties in the way of even a more rapid increase in the number of insuring bodies with which the company has been confronted have been the lack of knowledge amongst municipalists of the means by which the Mutual has attained the same security as an ordinary insurance company, even in the early and least profitable years of its existence, and the surprisingly prevalent pecuniary interest, direct or indirect, of influential members of municipal bodies, and sometimes of their officers, in the continuance of insurances with tariff offices. So common is the practice of receiving secret insurance commissions in commercial life, that without doubt in many cases members of corporations are unaware that for them to receive commissions out of the placing of municipal insurance is a corrupt practice, punishable with two years' hard labour and a fine of £500, under the Public Bodies Corrupt Practices Act, 1889, Section 1.

There is a quaint story current at the Mutual Company's office of an interview between the chairman of the Finance Committee of a corporation and one of the managing trustees and an officer of the company, in which the finance chairman said he had come to London to know if a commission of fifteen per cent., which he had been receiving for years on the insurance business of his corporation, would in future be paid to him if the business were transferred to the Mutual Company. On being informed that the company could not be party to any illegal practices contrary to the Public Bodies Corrupt Practices Act, which the proposed commission seemed to be, he replied jauntily, "Oh, it is quite legal in my borough under the provisions of a Local Act!" It is needless to add that the insurances of that corporation were not transferred to the Mutual Company.

Flood of Light on Holborn's Opposition.

One of the strongest opponents of the mutual insurance scheme amongst the London boroughs was Holborn, and the recent prosecution of the ex-Town Clerk of that Borough for retaining a secret commission of 15 per cent. on the Council's insurances now throws a flood of light upon the opposition shown to the scheme in that quarter. The inaction of a much greater corporation, which dallied with the scheme for a long time, and has not yet joined it, was explained by one in a position to know, with the remark that it would make a difference to one connected with the corporation of at least £300 per annum if the insurances went to the Mutual Company. No wonder such strenuous efforts were made on behalf of the Insurance Trust to get insurance commissions excepted from the recent Bill making all secret commissions illegal; but, fortunately, the existing law makes the practice in municipal circles a criminal offence, and the general probity and purity of the vast majority of our municipal administrators are free from any suspicion.

(To be concluded.)

NOTES AND ANSWERS.

Can Defamatory and Libellous Language at a Council Meeting be Regarded as "Privileged"? A Pipe which is Practically a Sewer. More Light on the Question of the Disqualification for Office of an "Interested" Town Councillor. Equality of Votes for Urban District Councillors. The Question of Recount. Taking Over Private Streets.

[BY A BARRISTER.]

650. — PRIVATE STREETS — Repaired by the Local Authority — Does this Constitute Adoption?

Will you kindly say, through the medium of your journal, whether a private street which has been regularly scavenged and repaired by the urban authority for some years could be held to have been adopted by such urban authority?—"TOWN CLERK."

The urban authority would not, apparently, be held to have adopted a private street by reason only of the fact that such authority had regularly scavenged and repaired it for some years. To establish that the road or street has been adopted by the authority, and, therefore, has become a public highway, and, as such, repairable by the inhabitants at large, it must be shown either—(a) that it has been used as a public highway prior to the Highways Act of 1835, or that it has been repaired by the highway authority since some date prior to the Act of 1835; or (b) that the formalities as to dedication and adoption prescribed by Sec. 23 of that Act have been complied with; (c) or that it has been formally adopted by the authority under Secs. 152 of the Public Health Act, 1875 (that is, after being made up to the satisfaction of such authority), or under the provisions of either of the later Acts viz.—the Public Health Acts Amendment Act, 1890, or the Private Street Works Act, 1892.

651 —BAD LANGUAGE USED AGAINST SANITARY OFFICIAL DISCHARGING HIS DUTIES —Liability of Offender.

As a sanitary official, I have had to issue a nuisance summons against an owner for default in non-compliance with a notice. The owner uses foul and filthy lauguage in the public thoroughfare, of which language there were witnesses. Can the owner be proceeded against for this kind of conduct towards a—"PUBLIC OFFICIAL?"

It is not an offence at common law for any person to use abusive or obscene language either in the public streets or elsewhere. If, however, "profane oaths" were used (and this, we should say, is probably the case), then the offender is liable to a fine under an old Act passed in the nineteenth year of the reign of George the Second, called the Profane Oaths Act. Apart from this enactment, we know of no statutory or other provision under which the "owner," who in the present case is said to have used bad language in the public street, can be punished, inasmuch as the delinquency took place in a rural district. Had it occurred in an urban district, the offender could have been proceeded against and fined in a penalty not exceeding 40s., or sent to prison, at the discretion of the justices, for a period not exceeding fourteen days, in pursuance of Sec. 28 of the Town Police Clauses Act, 1847, which section (with others) has been incorporated with the Public Health Act, 1875 (by Sec. 171 thereof), and applied to urban districts. Under that provision, the punishment indicated may be imposed on every person who "uses any profane or obscene language" in any street, to the obstruction or annoyance of the residents or passengers. The offender in such cases may, forthwith, be taken into custody by a constable, without warrant, and brought before a justice.

Possibly, the rural district council in this case has been invested by the Local Government Board with urban powers, including the above-mentioned enactment. If so, the offender may be prosecuted, as indicated in the case of an urban district. There is another statutory enactment which may be used with more effect in this case by the sanitary officer concerned. By Sec. 306 of the Public Health Act, 1875, it is provided that "any person who wilfully obstructs any member of the local authority, or any person duly employed in the execution of this Act," shall be liable to a penalty not exceeding £5. It has been held, under this section, that wilful obstruction need not amount to actual physical violence ("Borrow v. Howland," 66 J.P. 391), and it seems probable that the language and bearing of the "owner" in the case submitted by our correspondent would amount to an offence under the provision cited. To complete, for general purposes, our answer to the query, we may add that borough councils have power under Sec. 23 (1) of the Municipal Corporations Act of 1882, to make bye-laws (subject to disallowance by the Privy Council) regarding this and other matters which concern the "good rule and government of the borough" ("Mantle v. Jordan" 61 J.P. 119), and this power is frequently utilised by town councils.

652.—DRAIN OR SEWER?

A plan is enclosed showing drainage of a shippen (*i.e.*, cowhouse) and two houses—one known as Manor House and the other Farm House. The Manor and Farm House, outbuildings, and shippen and land on south of lane belong to one owner. The drains and overflow have been in this position for years. The land and buildings on the north side of lane belong to a different owner. The cesspool is in a bad state, and overflows by B drain or sewer pipe into a watercourse. As this drain or sewer became blocked, the local authority opened the ground and cleansed it. The old pit adjoining is full of sewage. Having regard to the Public Health Act, 1875, and the Public Health Acts Amendment Act, 1890, would not the drain at A to watercourse be a sewer within the meauing of these Acts? and would not also the cesspool have to be made good and cleansed by the local authority? Would the case of "Meader v. West Cowes Local Board" (Court of Appeal, L.T., vol. 67, N.S. 454) apply? In this case the overflow has been run by consent of local authority, and has not been interfered with. Also, can the owner call upon the local authority to make good from point A, and compel it to remove nuisance from the old pit and cesspool?—"OFFICIAL."

The first question which arises here is, whether the buildings drained are or are not within the same curtilage. If they are, then the pipe conveying the sewage matter is not a sewer, but remains a drain, for the repair and maintenance of which the owner, and not the local authority, is responsible (Sec. 4 Public Health Act, 1875). From the plan submitted, it would appear that the farm house is structurally joined to or connected with the manor house, and it seems probable, though this does not appear, that the two houses either constitute one building, or, with the outbuildings, are, or were, formerly included in one enclosure. The law as to this point (like much, or, indeed, most of the law relating to sewers and drains) is far from lucid, but it would seem probable that the two houses, together with the outbuildings, might be regarded as being within the same curtilage. The question, however, is one of fact. In this case, all the drains shown on the plan remain such, and are not sewers (see "Pilbrow v. the Vestry of St. Leonards, Shoreditch," 1895, 1 Q.B., 433, where two blocks of buildings enclosed within a continuous boundary, with the exception of an opening from the causeway between the two blocks to the roadway, were held to be "premises within the same curtilage.")

Assuming for the moment, however, that the houses do not constitute one building, and are not within the same curtilage, it seems to us that the conduit which takes the overflow of the cesspools and connects with the watercourse might be regarded as a sewer from the point where it takes the drainage of the two houses—on the authority of "Pinnock v. Waterworth" (51 J.P. 248, decided in 1887), but that the cesspools cannot be regarded as part of the sewer, or a work belonging thereto, and as vesting in the local authority under Sec. 13 of the Public Health Act, 1875, having regard to the decision referred to by our correspondent. That case was followed in the case of "Button v. Tottenham U.D.C." (78 L.T. 470), decided in 1898. There an owner of certain houses constructed a series of cesspools for their drainage on his own lands; also a conduit to convey the overflow to a larger cesspool, and it was held that the conduit and the large cesspool did not constitute a sewer. The conduit, it will be observed, did not, as in the present case, drain into any watercourse or other receptacle beyond the cesspool. There is, however, some doubt as to whether the principle decided in Pinnock's case has not been interfered with by the later decisions referred to. On the whole, in our opinion, it is very doubtful whether the owner and occupiers of the premises would be able to object effectively to the local authority's insisting on its abating any nuisance which may arise in connection with the cesspool or drains indicated on the plan.

653.—NUISANCE ARISING FROM STACK PIPE—Right of Owner of Injured House to Abate Nuisance.

I own a house, and there are three houses on one side and one on the other, making five in all. On the house I own there is a stack-pipe which carries the water of the five houses. This pipe often gets stopped up, and overflows down my house, thereby causing me a great deal of trouble, besides expense and damage. I can see no other remedy than to have another stack-pipe erected on one of the three houses adjoining on the one side, so as to relieve the existing one. I have therefore written the owners of two of the houses asking permission to have a stack-pipe erected on one of the houses, and in reply was informed "they did not want to spend any more money on the houses," neither would they consent to have a pipe placed. Since then I have written again twice, but have not received any reply. I shall therefore be obliged if you could kindly inform me if I should be justified, after giving the owners notice of my intention, in cutting the gutter at the end of my house, thus causing the owner of the other houses to find an outlet for their water.—"BRUNO."

Any person who suffers injury from a nuisance is entitled to take such steps as are reasonably necessary to abate the nuisance (see the leading case of "Lemnon v. Webb," 1895, A.C.I.), in which the House of Lords held that an adjacent owner was justified in cutting off the branches of a tree which overhung his land without notice to the party responsible). In the present case, on the facts as stated, it does not, however, appear clear to us that our correspondent would be justified in cutting the gutter at the end of his house, and so necessitating the construction of a fresh receiving pipe for the rain-water from the three houses adjoining, inasmuch as the nuisance is partly caused by the water from his own house. Even if this were not so, the proposed action seems somewhat high-handed, and could only be justified, in our opinion, by the existence of a nuisance of a serious type. Cannot some arrangement be made under which the owners of all five houses shall jointly contribute to the erection of a new stack pipe to take the rain-water from the three houses above-mentioned, and then to allow the gutter to be cut as suggested? The legal rights of the parties in this matter will depend upon various other circumstances, such as the conditions under which the houses were purchased, and the length of time during which our correspondent's house and that of this single neighbour (who, we gather, suffers equally from the nuisance), have borne this stackpipe which is complained of.

Another point is that this pipe would appear to be technically a sewer within the meaning of the decision in "Holland v. Lazarus" (1897). As approved in "Silles v.

Fulham Borough Council" (1903, I.K.B. 329), it was there held that a rain-water pipe was a drain, and that its unauthorised connection with the drain belonging to four other houses converted the latter from the point of junction, and onwards, into a sewer. It would seem probable, therefore, that the provisions of Sec. 19 of the Public Health Acts Amendment Act, 1890 (if adopted by the local authority), will apply here. Under that enactment this stack-pipe, though apparently coming within the technical definition of a sewer, is a "single private drain," and if it is, as we presume, connected with an ordinary public sewer, the case may be one in which the local authority has power to take action, on complaint of a nuisance arising from the drain, and recover any expenses involved from the owners of the houses concerned. We suggest, therefore, that our correspondent should communicate in the matter with the local authority.

654.—**SLANDER BY COUNCILLOR AT COUNCIL MEETING—Can Privilege be Pleaded?**

I shall be very glad if you will tell me whether a town councillor, who has used defamatory and libellous language at a meeting of the town council, can plead "privilege" when threatened with an action for damages.—"Corporation Official."

Councillors are entitled to discuss the conduct of their officers at meetings of the council, and, generally speaking, those occasions are privileged, so that even if defamatory statements are made about any officer, the councillor making them will not ordinarily be liable for slander, in the absence of malice, on his part. As was laid down in the leading case of "Harrison v. Bush" (5 E. and B., 344), "a communication, made in good faith, upon any subject matter in which the person communicating it has an interest, or in reference to which he has a duty, is privileged, if made to a person having a corresponding interest or duty, although it contains criminatory matter which, without this privilege, would be defamatory and actionable." On the other hand, charges made against an officer should ordinarily be investigated in the first place before a committee, and when considered by the council the public should be excluded ("Purcell v. Sowler," 1877, 2 C.P.D. 289). A councillor's privilege in this respect is thus a qualified one, and if malice, or indirect motives, or absence of reasonable grounds for his statement, be proved, the official injured will have his remedy at law.

655.—**COUNCILLOR AND MEMBER OF LOCAL EDUCATION COMMITTEE INTERESTED IN CONTRACT WITH THE COMMITTEE—Disqualification.**

A town councillor of A is a member of a firm of architects who have been appointed to carry out the erection of a school at A. The appointment has been made by the 15 governors of the proposed school, who were elected as follows:—Six by the town council of A (all being councillors), six by the county council; these twelve then appointed three persons to make up the full number. The school is to be paid for by the town and county council combined, and is to be built in the town of A. The town councillor is a member of the borough Education Committee. Will the firm of architects be legally entitled to carry out the work.—"Kent Member."

The "governors" of the proposed school, if not actually "managers," appear to be practically in the same position and relation to the local education authority as managers under the Education Act of 1902. In any case, what has occurred is, we understand, that the firm in which a town councillor, who is also a member of the Council's Education Committee, is a partner, has been appointed architect of the proposed new school to be built for the local education authority, and paid for out of public moneys.

Any person is disqualified for being a town councillor who "has directly or indirectly, by himself or his partner, any share or interest in any contract or employment with, by, or on behalf of the council." (Sec. 12 (1) (c) of the Municipal Corporations Act, 1882.) Further, it is provided by Sec. 17 (4) of the Education Act, 1902, that any person shall be disqualified for being a member of an Education Committee, who, by reason of holding an office or place of profit, or having any share or interest in a contract or employment, is disqualified for being a member of the council appointing such Education Committee (with certain exceptions in favour of teachers).

Having regard to these provisions, it seems to us that the architect whose firm has been appointed for the new school, is disqualified for office, both as town councillor and also as a member of the Education Committee, inasmuch as he is interested as partner in a contract made on behalf of the Education Committee which represents the council. If we have not rightly apprehended the relationship of the "governors" and of the proposed new school to the local authority, our correspondent will correct us. We may add that the contract is quite good, and the firm engaged are entitled to carry it out, but the proper course would be for the councillor concerned to resign his public offices, and so escape liability for the penalties prescribed where the above-quoted provision of the Municipal Corporations Act is infringed.

656.—**URBAN COUNCIL ELECTION — What Happens when two Candidates have Equal Votes?**

I should be glad if you could let me know whether if a tie takes place at our next urban district council election a candidate can claim for a recount, or must it be decided by the returning officer. I am asking this because at our last election there was a tie for the last place between two candidates, and the returning officer balloted between them as to which should be elected. Was this legal? If it is possible to claim a recount, what course do you recommend should be carried out, and does the candidate who asks for a recount have to find a certain sum of money, and, if so, how much?—"A Candidate."

The difficulty indicated by our correspondent is met by the rules of the General Order as to the election of urban district councillors, issued by the Local Government Board on January 1, 1898, in pursuance of Sec. 48 (7) of the Local Government Act, 1894. It is provided by Article 21 of that Order that, "If an equality of votes is found to exist between any candidates, and the addition of a vote would entitle any of such candidates to be declared elected, the returning officer, or deputy-returning officer, who counts the votes, may, if a parochial elector of the district, give such additional vote in writing, but shall not otherwise be entitled to vote at the election. If in such case the returning officer, or deputy-returning officer, as the case may be, is not a parochial elector of the district, or is unwilling to vote, he shall determine by lot which of the candidates whose votes are equal shall be elected." Apparently, therefore, the procedure adopted at the last election, as described by our correspondent, was quite regular and legal.

657.—**EXPENDITURE OF SURPLUS RATE IN PURCHASE OF LAND—Legality.**

In our urban district a rate was made a few months ago providing a surplus (beyond the estimates) of £233. It is now proposed by a majority of the council to spend a part of this money in acquiring a piece of land. Is this legal? If not, what is our course to prevent this expenditure?—"Minority."

The council is not bound by its estimate. The estimate is not deemed to be part of the rate, nor does it affect the validity of the rate in any way (Public Health Act, 1875, Sec. 218). Where there is a surplus over from rate moneys, it is competent for the urban district council to spend it in the purchase of land on any of the purposes for which it is authorised to acquire land under the Public Health Acts, or other statutes under which the council exercises its powers. Thus, the council may buy land for sewage purposes, for street improvements, and for various other purposes. In the present case, if the land is required for some purpose for which the council has power to buy land, it is lawful to devote the surplus over from the rate to the purchase of such land.

RECENT DECISIONS IN THE COURTS.

Elective Auditors. Illegality of Expenditure in Connection with their Election—Relief from Penalty Application from Cheltenham.

The decision in this case bears out and illustrates an opinion we gave in this column in our issue of February 17 as to the illegality of expenditure incurred by candidates for the office of elective auditor in connection with their candidature. Application was made to a Divisional Court on behalf of Mr. Gale, one of the candidates for the position of elective auditor in Cheltenham, for relief, under Section 20 of the Municipal Elections (Corrupt and Illegal Practices Act, 1884). That section provides that, where, on application made, it is shown to the High Court that any act or omission of a candidate at a municipal election, or of any agent or other person, would, by reason of being in contravention of any of the provisions of the Act, be an illegal practice, or payment, and that such act or omission arose from inadvertence or from accidental miscalculation, or from some other reasonable cause of a like nature, and, in any case, did not arise from any want of good faith, and that such notice of the application has been given in the borough affected as the Court thinks fit, then, if, under the circumstances, it seems to the Court to be just that the said candidate should not be subject to the consequences of the said act or omission, it may make an order relieving the candidate from the consequences under the Act of his illegal act or omission. Previous to the present election, it appears to have been customary in the borough for candidates to issue cards inviting support at the election, and also polling-cards, giving information as to the place of polling. This custom Mr. Gale fell in with, and only after he had done so was his attention called to its illegality. He forthwith stopped any further issue of the cards, gave notice to the other candidates and the returning officer, and took the first opportunity of applying to the Court for relief. Since then the applicant had been returned as elected. The Court, therefore, thought best to adjourn the case in order that the other parties might be served with another notice, to enable them to be present, as the illegal expenditure in respect of which relief was sought might be a ground for upsetting the election. The particular section of the Act of 1884 which the applicant had offended against was Section 5 (1), which prohibits any expense being incurred by or on behalf of a candidate at a municipal election, save in the case of councillors, who may spend up to a certain limit.

Tramways.—Liability of Contractor with Local Authority for Damage to Private Person During Progress of Works — "Beale v. Griffiths and Co."

The facts in this case were shortly these: B. was driving his pony and barrow along a road, when one of the wheels skidded on a raised tram rail, temporarily placed in the road by G. and Co., who had contracted with the London County Council to electrify the South London tramway system. As a result, the barrow was upset, and B. injured somewhat seriously.

Mr. Justice Lawrance left to the jury the question whether, assuming that G. and Co. had a right to put down the rails, they had done so negligently? This question the jury answered in the affirmative, holding that negligence had been shown both in constructing and in maintaining the temporary rail, and awarded B. £860 damages. The Court entered judgment accordingly. The contractor would here seem to have had full control of, and responsibility for, the works, and in such cases the local authority is not liable. It would be otherwise if the damage was caused by the existence of the line, apart from the mode in which it had been laid, or if the County Council had interfered with and taken responsibility for the work of its contractor.

Official Advertisements.

BOROUGH OF ASTON MANOR.

CONTRACT No. 6.

TO TRAMWAY CONTRACTORS.

THE Corporation invite TENDERS for the RECONSTRUCTION of existing TRAMWAYS in their District, and the construction of other Works in connection therewith.

Tramway Contractors desiring to submit Tenders for the works are requested to send applications to the Consulting Engineer of the Corporation, Mr. ROBERT GREEN, Assoc.M.Inst. C.E., 37, Waterloo-street, Birmingham, on or after Monday, the 13th inst., together with a deposit of 5 guineas, which will be returned to unsuccessful Contractors upon the receipt of a bona-fide tender and the return of all documents supplied to them.

Drawings may be seen at, and Specifications, Bills of Quantities, and Forms of Tender obtained, after the same date, from the Offices of the Consulting Engineer, as above.

The Contractor whose Tender is accepted will be required to pay the workmen employed by him in carrying out the works not less than the minimum local standard rate of wages.

Sealed Tenders to be addressed to Alderman Walter Evans, Chairman of the Public Works Committee, and delivered at the Council House, Aston Manor, before twelve o'clock noon, on Friday, the 24th inst.

The Corporation do not bind themselves to accept the lowest or any Tender sent in, and no allowance will be made to Contractors for any expense incurred in connection therewith.

By order.

JOSEPH ANSELL,
Town Clerk.

The Council House, Aston Manor,
March, 1905.

BOROUGH OF PADDINGTON.

TENDERS FOR SUPPLIES, &e.

NOTICE is Hereby Given that the Council of the Metropolitan Borough of Paddington, in the County of London, are prepared to receive TENDERS from persons willing to CONTRACT for the following WORK and MATERIALS for one year, commencing April 1st, 1905:

2. Disinfectants.
3. Lamp Columns, Iron Castings, &c.
4. Lanterns and other Fittings for Public Lamps.
5. Asphalte Paving Work.
6. Paving Materials—(a) Footway Kerb, (b) Natural Gritstone Flags, (c) Granite Setts.
7. Broken Granite.
8. Gravel and Hoggin.
9. Road Scarifying and Rolling Work.
10. Yellow Deal Paving Blocks.
11. West Australian Hard Wood Paving Blocks.
12. Lime and Cement.
13. Oilmen's Goods and Painting Materials.
14. Ladders, Barrows, and Planks.
15. Iron and General Ironmongery.
16. Brooms and Brushes.
17. Baskets.
18. Grease, Oil, and Engineers' Sundries.
19. Harness Materials and Stable Requisites.
20. Wheels for Vans, Carts, and Trucks.
21. Tiring and Retiring Van Wheels.
22. Timber (No. 1), Oak, Ash, Elm, &c.
23. Timber (No. 2), Deal, Pine, &c.
24. Horses, Men, Carts, on Hire.
33. Tarpaulins, Tarred Rope, and Masons' Lines.
34. Towels, Dusters, &c.
43. Reception and Removal of Slop, Soft Core, &c
44. Bricks, Tiles, Slates, Drain Pipes, and Sundries.
45. Thames Ballast, Sand, and Shingle.
46. Repairing, Maintaining, and Testing Meters, Governors, &c.
47. Drawing Materials.

To be delivered free within the Borough.

Upon application at the Borough Surveyor's Office, Town Hall, Paddington, W., between the hours of 10 and 4 (Saturdays 10 and 1), or by making a written request for the same, printed forms of tender will be forwarded.

No tender will be considered unless made strictly in accordance with and on one of the printed forms issued, and the same must be delivered at the Town Hall, Paddington, W., on or before Saturday, the 18th March, after which no tender will be received.

Letters of enquiry respecting any of the above contracts should have the number of the contract written in the top left hand corner on the outside of the envelope.

The Council do not bind themselves to accept the lowest or any tender.

By order.

A. W. J. RUSSELL,
Town Clerk.

Town Hall,
Paddington, W.
6th March, 1905.

SUTTON (SURREY) URBAN DISTRICT COUNCIL.

ANNUAL CONTRACTS.

THE Council invite TENDERS for the supply of the following Materials during the year ending March 31st, 1906:—

1. Broken Granite and Basalt.
2. Gravel Flints.
3. Hand-picked Surface Flints.
4. Granite Setts and Cubes.
5. Hardwood Paving Blocks.
6. Granite Kerbing and Channelling.
7. Stoneware and Sanitary Pipes.
8. Portland Cement.
9. Manganate of Soda.
10. Sulphuric Acid.
11. Disinfectants.
12. Tarpaving Material.
13. Ironmongery, Tools, Oils, Paints, Soaps, &c.
14. Manhole Covers, Gully Grates, &c., &e.
15. Street Lanterns and Lamp Columns.
16. Horse Forage.
17. Coal and Coke.
18. Smith's Work.
19. Purchase of Street Sweepings from the several districts of the town.

Conditons of contract and forms and tenders may be obtained on application to the undersigned, or will be posted on receipt of stamped and addressed foolscap envelope.

Sealed tenders on the forms supplied, and endorsed "Tender for Materials," will be received by me up to 3 o'clock p.m., on Wednesday, the 29th day of March, 1905. The Council do not bind themselves to accept the lowest or any tender.

C. CHAMBERS-SMITH,
Engineer and Surveyor to the Council.

Municipal Offices,
Sutton, Surrey
3rd March, 1905.

URBAN DISTRICT OF BARKING TOWN.

FIRE BRIGADE—ENGINEER.

THE Urban District Council of Barking Town is prepared to receive applications for the position of ENGINEER, in connection with the Fire Brigade.

Applicants must be experienced Firemen, and practical mechanics, capable of working and keeping in repair a steam Fire Engine.

The person appointed will be required to perform such other duties as may be assigned to him at and in connection with the Council's Yard.

Wages, 30s. per week, with house, coal and light.

Applications, stating age, experience, &c., marked "Engineer," with copies of not more than two recent testimonials, must be sent in to the undersigned not later than the 14th instant.

Canvassing, either directly or indirectly, will be a disqualification.

H. HARGREAVES,
Clerk to the Council.

Public Offices,
Barking, Essex,
1st March, 1905.

COUNTY BOROUGH OF ROTHERHAM.

THE Corporation invite TENDERS for the following:—

A Double Vertical Steam Fire Engine to consume oil fuel, capacity 250 gallons per minute, weight ready for work, not to exceed 30 cwt., to be fitted with two Klinger water-ganges and two independent lever brakes.

Motor Balancer for the Electric Light Generating Station.

Watering Car and Track Sweeper for use on the Corporation Electric Tramway System.

Tramway Clothing for Inspectors, Motormen, and Conductors.

Further particulars may be obtained as follows:—

As to the Steam Fire Engine, on application to the Chief Constable, Town Hall, Rotherham.

As to the Motor Balancer, on application to the Borough Electrical Engineer, Rawmarsh Road, Rotherham.

As to the Watering Car and Track Sweeper, on application to the Tramways Manager, Car Depot, Rotherham.

As to Tramway Uniforms, on application to the Tramways Manager, Car Depot, Rotherham.

The persons whose tenders respectively are accepted will be required to enter into contracts which will contain the usual fair-wages clause.

Tenders respectively endorsed "Fire Engine," "Motor Balancer," "Water Car," or "Uniforms," to be sent to me not later than the 18th inst.

W. J. BOARD,
Town Clerk.

Town Hall, Rotherham.
3rd March, 1905.

METROPOLITAN BOROUGH OF STEPNEY.

PRINTING AND BOOKBINDING. STATIONERY.

THE Council of the Metropolitan Borough of Stepney hereby invite Tenders for the execution of Printing and Bookbinding and the supply of Stationery for a period of three years from the 1st day of April next.

Persons or firms tendering must submit the names and addresses of two substantial persons who are willing to be jointly and severally bound for the due and proper performance of the contracts.

During the existence of the contracts, the trade union rate of wages as agreed to by the employers' associations and trade unions, and as in practice obtain, must be paid, and no assigning or underletting of any part of such contracts will be permitted without the written consent of the Council previously obtained.

Forms of Tender, Conditions, Contract and Schedule may be obtained upon application to the undersigned between the hours of Ten a.m. and Twelve noon, upon deposit of a Five Pound Bank of England note for each form of tender, &c., issued.

The deposit fees will be returned upon receipt of a bona-fide tender with the other documents issued.

Tenders must be endorsed, "Tender for Printing and Bookbinding," or "Tender for Stationery," as the case may be, and sent to the undersigned on or before noon on Wednesday, the 22nd day of March, 1905.

The Council will not be bound to accept the lowest or any tender.

By order.

GEO. W. CLARKE,
Town Clerk.

Municipal Offices (temporary),
15, Great Alie-street,
Whitechapel, E.
6th March, 1905.

THE BEST JUDGES OF CIGARS
Now obtain their supplies at
BENSON'S, 61, St. Paul's Churchyard, London.
Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

GRIFFIN'S
LOCAL GOVERNMENT HANDBOOKS.

WORKS SUITABLE FOR MUNICIPAL AND COUNTY ENGINEERS, ANALYSTS, AND OTHERS.

FIRE AND EXPLOSION RISKS: A Handbook of the Detection, Investigation, and Prevention of Fires and Explosions. By DR. VON SCHWARTZ. Translated from the Revised German Edition by C. T. C. SALTER. Large 8vo. Handsome Cloth. Price 16s. net.

GAS MANUFACTURE (THE CHEMISTRY OF): A Handbook on the Production, Purification, and Testing of Illuminating Gas, and the Assay of Bye-Products. By W. J. A. BUTTERFIELD, M.A., F.I.C., F.C.S. With Illustrations. THIRD EDITION. Revised. Vol. I., 7s. 6d. net. Vol. II. *in preparation.*

ACETYLENE: The Principles of its Generation and Use. By F. H. LEEDS, F.I.C., F.C.S., Member of the Society of Public Analysts and of the Acetylene Association: and W. J. A. BUTTERFIELD, M.A., F.I.C., F.C.S. With Diagrams and Illustrations. 5s. net.

WATER SUPPLY: A Practical Treatise on the Selection of Sources and the Distribution of Water. By REGINALD E. MIDDLETON, M.Inst.C.E., M.Inst. Mech.E., F.S.I. With Four Plates and Numerous Diagrams. Crown 8vo. 8s. 6d. net.

CENTRAL ELECTRICAL STATIONS: Their Design, Organisation, and Management. By C. H. WORDINGHAM, A.K.C., M.Inst.C.E. SECOND EDITION. 24s. net.

ELECTRICITY CONTROL: A Treatise on Electric Switchgear and Systems of Electric Transmission. By LEONARD ANDREWS, M.I.E.E., ex-Member of Council of the Incorporated Municipal Electrical Association; Consulting Electrical Engineer to the Hastings Corporation, &c., &c. Large 8vo. 12s. 6d. net.

SEWAGE DISPOSAL WORKS: A Guide to the Construction of Works for the Prevention of the Pollution by Sewage of Rivers and Estuaries. By W. SANTO CRIMP, M.Inst.C.E., F.G.S. SECOND EDITION. Revised and Enlarged. Large 8vo. Handsome Cloth. With 37 Plates. Price 30s.

TRADES' WASTE: Its Treatment and Utilisation. With Special Reference to the Prevention of Rivers' Pollution. By W. NAYLOR, F.C.S., A.M.Inst.C.E. With Numerous Plates, Diagrams, and Illustrations. 21s. net.

CALCAREOUS CEMENTS: Their Nature, Preparation, and Uses. With some Remarks upon Cement Testing. By GILBERT REDGRAVE, Assoc. Inst.C.E.; and C. SPACKMAN., F.C.S. With Illustrations, Analytical Data, and Appendices on Costs, &c. SECOND EDITION. Re-written and greatly enlarged. 15s. net.

ROAD MAKING AND MAINTENANCE: A Practical Treatise for Engineers, Surveyors, and others. With an Historical Sketch of Ancient and Modern Practice. By THOMAS AITKEN, Assoc. M.Inst.C.E., M.Assoc.Municipal and County Engrs., M.San.Inst. With Numerous Plates, Diagrams, and Illustrations. 21s.

LIGHT RAILWAYS AT HOME AND ABROAD. By WILLIAM HENRY COLE. M.Inst.C.E., late Deputy Manager North-Western Railway, India. Large 8vo. Handsome Cloth. Plates and Illustrations. 16s.

PRACTICAL SANITATION: A Handbook for Sanitary Inspectors and others interested in Sanitation. By GEO. REID, M.D., D.P.H., Medical Officer, Stafford County Council. With Appendix on Sanitary Law, by Herbert Manley, M.A., M.B., D.P.H. ELEVENTH EDITION. Thoroughly Revised. 6s.

SANITARY ENGINEERING: A Practical Manual of Town Drainage and Sewage and Refuse Disposal. By FRANK WOOD, A.M.Inst.C.E., F.G.S., Borough Surveyor, Fulham. Fully Illustrated. 8s. 6d. net.

DAIRY CHEMISTRY: A Practical Handbook for Dairy Managers, Chemists, and Analysts. By H. DROOP RICHMOND, F.C.S., Chemist to the Aylesbury Dairy Company. With Tables, Illustrations, &c. Handsome Cloth. 16s.

MILK: Its Production and Uses. With Chapters on Dairy Farming, the Diseases of Cattle, and on the Hygiene and Control of Supplies. By EDWARD F. WILLOUGHBY, M.D.(Lond.), D.P.H. (Lond. and Camb.), Inspector of Farms and General Scientific Adviser to Welford and Sons, Ltd. 6s. net.

FLESH FOODS: With Methods for their Chemical, Microscopical, and Bacteriological Examination. A Handbook for Medical Men, Inspectors, Analysts, and others. By C. AINSWORTH MITCHELL, B.A., F.I.C., Mem. Council Soc. of Public Analysts. With Numerous Illustrations and a Coloured Plate. 10s. 6d.

FOODS: Their Composition and Analysis. By A. WYNTER BLYTH, M.R.C.S., F.C.S., Public Analyst for the County of Devon: and M. W. BLYTH, B.A., B.Sc. With Tables, Folding Plate, and Frontispiece. FIFTH EDITION. Thoroughly Revised. 21s.

Complete Catalogue Post Free on Application.

LONDON: CHARLES GRIFFIN & CO., LTD., EXETER STREET, STRAND

GOVERNMENT PUBLICATIONS

Published by

WYMAN AND SONS, LIMITED,

Fetter Lane, London.

Allotments, Model Regulations. Post free, 2½d.

Agricultural Labourers' Earnings. Post free, 2s. 9d.

Alcoholic Beverages, Production and Consumption in Foreign Countries, with Revenue. Post free, 10d.

Births and Deaths, Registrar-General's Weekly Returns. Subscriptions, 8s. 8d., post free.

Bye-Laws, Model (three papers). Post free, 11½d.

Cancer Research Correspondence. Post free, 10½d.

Education Acts, 1870-1904, complete, 1s. 9d., post free.

Education, Planning and Fitting Up Schools. Rules post free, 2½d.

Education, Regulations for Training and Instruction of Pupil Teachers. Post free.

Education, Regulations for Training of Teachers and for the Examination of Students in Training Colleges. Post free.

Factories and Workshops. Annual Report of Chief Inspector. Part I. Post free, 3s. 2d.

Factories and Workshops. Annual Report of Chief Inspector. Part II. Post free, 7½d

Highways, Report of Committee, Evidence, &c. Post free. 1s. 10d

Housing of Working Classes. Three Papers Relating to Closing Orders. Post free, 4d.

Licensing Act, Rules of Home Office. Post free. 4d.

Local Government Board Report. Post free. 5s. 5d.

Local Taxation. Part VII. Summaries. Post free, 1s. 4d.

Motor Car Order, Heavy Cars. Regulations, &c. Four papers. Post free, 5d.

Physical Exercises for Use in Public Elementary Schools. Syllabus, post free, 11d.

Physical Training, Modern Course. Post free, 11½d.

Sewage Disposal. Fourth Report of Royal Commission, with Charts, Diagrams, and Bacteriological Investigations. Complete. Post free, £2 10s.

Smoke, Laws in Other Countries in Regard to Smoke from Chimneys. Post free, 3½d.

Weights and Measures, Stamping of, Order. Post free, 1½d.

Vagrancy, Report on Methods of Dealing With in Switzerland. Post free, 2½d.

Write Direct to

WYMAN & SONS, LTD., FETTER LANE,

LONDON,

For Acts of Parliament, Bills in Parliament, Codes, Regulations, Reports, and all Parliamentary Papers and Government Publications.

SUN FIRE OFFICE

HEAD OFFICE:
63, Threadneedle Street, London, E.C.

Branch Offices in London:
60, Charing Cross, S.W.
332, Oxford Street, W.
40, Chancery Lane, W.C.
4, Mincing Lane, E.C.

BIRMINGHAM .....10, BENNET'S HILL.
BRISTOL..... CORN STREET.
LEEDS.....SUN BUILDINGS, 15, PARK ROW.
LIVERPOOL.....SUN BUILDINGS, 6, CHAPEL-ST.
MANCHESTER..... 71, KING STREET.
NEWCASTLE..... 19, COLLINGWOOD STREET.
EDINBURGH.....40, PRINCES STREET
GLASGOW..... 42, RENFIELD STREET.
DUBLIN .....10, TRINITY STREET.

Funds in Hand, £2.535.800.

"THE SCHOOL MANAGER."

A WEEKLY NEWSPAPER FOR EDUCATIONAL ADMINISTRATORS

ONE PENNY WEEKLY.

Indispensable to Members of Municipal and County Councils and especially to Members of Educational Committees.

SUPPLIED BY ANY NEWSAGENT.

"I consider it a marvellous educational pennyworth that ought to be in the hands of every educational authority in the country."—CHAIRMAN OF A TYNESIDE EDUCATION COMMITTEE.

"I am doing all I can to push THE SCHOOL MANAGER, which has more real, live news in it than any other paper."—SECRETARY OF A COUNTY BOROUGH EDUCATION COMMITTEE.

5 & 6, Johnson's Court, Fleet Street, LONDON, E.C.

DELICIOUS COFFEE.

RED WHITE & BLUE

For Breakfast & after Dinner.

In making, use LESS QUANTITY, it being so much stronger than ORDINARY COFFEE.

WARD & MACONIE,

15, HANOVER STREET, LONDON, W.

Municipal Robe Makers and Court Tailors.

PRICE LIST ON APPLICATION.

AGENTS REQUIRED in unrepresented districts for the Imperial Accident, Live Stock, and General Insurance Co., Ltd. Estd. 1878. Departments: — Personal Accidents, Carriage and Drivers' Accidents, Horse and Cattle Insurance. Claims paid £300.000. Address Mr. B. S. Essex, Manager, 17, Pall Mall East, London, S.W.

MUNICIPAL MUTUAL INSURANCE
LIMITED.

This Association of 47 Municipal and Poor Law Authorities insures all classes of Municipal Property on absolutely mutual lines, each policy holder having an equal voice in the management. The security available consists of

Funds of Over 5 Millions.

First Balance-Sheet and Report (to be had on application by Municipalities) shows a nett

SAVING OF 25 PER CENT. ON CURRENT PREMIUMS.

The Scheme aims at Reducing Rates on Municipal Property to the

ACTUAL FIRE LOSS,

proved by statistics over the last 20 years to be about

4d. per £100 Insured.

The fullest Particulars can be obtained of
THE CHAIRMAN OF MANAGING TRUSTEES,
Offices—Shoreditch Town Hall,
Old Street, E.C.

TO MUNICIPAL AUTHORITIES.

First-class Orchestras, Military Bands, and Concert Parties provided *at minimum rates* for every kind of function, or for Season.

J. HERBERT JAY,
10 & 11, Jermyn Street, Piccadilly.
Telephone—6534 Gerrard.

"I firmly believe that if the children were well fed our workhouses, gaols, and asylums would soon be empty."—Sir John Gorst, M.P.

PLASMON COCOA.

Equals in nutriment ½lb. of Beef or 10 Cups of ordinary Cocoa, and is absolutely free from chemicals.

Aids Digestion. Braces the Nerves. Invigorates the System.

PLASMON COCOA

In tins 5d., 9d., 1 4, and 2 6.

Contractors to H.M. Government and the Metropolitan Asylums Board.

TO SUBSCRIBERS.

REVISED SUBSCRIPTION RATES for the New and Enlarged Series of the "Municipal Journal" (commenced 3rd March).

For the United Kingdom.
Post free.

Three Months	2s. 5d.
Six Months	4s. 9d.
Twelve Months	9s. 6d.

Abroad.

Six Months	6s. 6d.
Twelve Months	13s. 0d.

Cheques and Postal Orders to be made payable to Edward Lloyd, Limited, 12, Salisbury-square, London, E.C., and crossed London and "Westminster Bank."

An admirable Food of the
EPPS'S
Finest quality and flavour.
COCOA
Nutritious and Economical.

MUNICIPAL JOURNAL
FRIDAY, MARCH 10, 1905.

Notes and Comments.

The Companies' Franchise Bill.

We are glad that Sir Albert Rollit was able to withdraw the motion for the second reading of the Municipal Franchise (Companies) Bill in the House of Commons last Friday evening. Our columns have frequently borne witness to the marked disapproval with which the principle of the measure has been received by representative local authorities in all parts of the country, and in London the movement in favour of the departure, which emanated from Holborn, has proved an utter failure. Mr. John Burns effectively summarised the principal objections to the Bill when he said that it would, if passed into law, lead to gerrymandering all over the country, and would produce a very great injustice to the community. It is entirely a matter for choice by the persons concerned whether directors and shareholders of companies vote in particular localities. If they have the necessary qualifications they are able to vote in the same way as other persons, and if they do not possess those qualifications they are equally disqualified. To be just in any scheme of this kind those companies with large rateable values should have more votes than organisations with small values, and if a "sliding scale" of this kind were adopted many private enterprises would be able to assume control of civic undertakings that to all intents and purposes are competitors in their businesses. The undesirable nature of such a position is so obvious that it does not need demonstration. Sir Albert has increased the obligation which the municipal movement already owes him by his courageous action in Parliament last Friday.

Local Government Board Estimates.

The provision made for the English, Scotch, and Irish Local Government Boards in the Civil Service Estimates for 1905-6 amounts in gross to £331,256, as compared with £321,773 in the year just ending, and with £303,254 actually spent in 1903-4. Expenses borne by other Votes are put at £63,436, as against £69,227, making the full charge of the Departments £394,692, as compared with £391,000. In reduction of this, however, there are certain items of income expected to run up to £75,551, as against £74,455, leaving the nett cost to the country £319,141, as compared with £316,545, or an increase of about ¾ per cent. The Appropriation Accounts show that the nett cost in 1903-4 was £290,197. The distribution between the three kingdoms of the sum expected to be required during the next financial period is as follows, the figures of the preceding estimates being added for the sake of comparison:—

	1905-6.	1904-5.
	£	£
English Board ...	238,254	232,289
Scotch Board ...	14,905	14,598
Irish Board	78,097	74,886
Total	331,256	321,773

Of the aggregate, salaries absorb 77 per cent. and travelling expenses 13 per cent. The audit department takes altogether 26 per cent. The largest item in the supplementary expenses borne by other Votes is superannuation, which is responsible for 3·7 per cent. of the extra total. There are now 771 officials employed by the three Boards, as against 759 twelve months ago.

Emigration of State Children.

English Poor Law guardians have an uneasy feeling that further advantage might be taken of the benefits of emigration for State children. Of the 60,000 rate-supported children, only some two or three hundred are annually drafted to Canada, and of late years, there has been a tendency for even this small number to fall away. Last autumn Mrs. Close, of Eton Square, London, who takes a keen interest in the welfare of children in workhouse institutions, returned to England after a six months' tour in Canada, made entirely with the object of ascertaining how far it would be possible to emigrate in considerable numbers this unfortunate class of children to the beautiful lands of Nova Scotia and New Brunswick. She was confident that children from three years old and upwards might be provided for in what may be called scattered farm homes, where they would be trained to Canadian life under the healthiest conditions, and at less cost than under some of the present systems of rearing State children in this country. Our readers will remember that Mrs. Close's scheme was considered at the Mansion House (London) meeting on January 30, when the Lord Mayor (Alderman Pound), who presided, declared that a resolution in its favour was carried by a large majority—a decision which was disputed by a number of those present. On Monday a conference, representative of Boards of Guardians from all over the country, was held at the

Mansion House, when the following somewhat ambiguous resolution was adopted after considerable amendment :— "That emigration is a most desirable method of dealing with Poor Law children, and that this meeting would welcome any practical scheme or schemes which would add to the present facilities and tend to increase the efficiency of existing agencies." Does this mean that Mrs. Close's scheme would be welcomed? Or does it mean it is desirable only to extend the usefulness of the present existing private or religious agencies? The resolution as originally moved by the chairman of the Fulham Board of Guardians (the Rev. P. S. G. Propert) contains the words, afterwards deleted, that the meeting "is confident that the existing facilities and agencies are at present sufficient for this purpose without the introduction of further schemes." Matters, apparently, remain much as they were. Some of the Press reports state that a motion was adopted expressing the view that it was desirable to form a central committee to deal with the question, and resolving at once to elect a provisional committee, consisting of twenty guardians, with full power to act; but the *Times* says this resolution was rejected. Meanwhile much valuable time is being lost. It is undoubtedly both to the good of this country and to Canada, as well as to the highest interests of the children, that something more should be done than is being done at present to give Poor Law children a new start in a new country.

A Novel Challenge.

NOVEL and varied are the ways of the new journalism. The *Cardiff Evening Express* is publishing a series of articles intended to expose the extravagance of the the Corporation, and a day or two ago it dealt with the balance-sheet of the municipal baths. It was stated that the following losses were incurred on the actual working of the baths, making no allowance for the loan charges, in a series of years :—1894, £51; 1895, £178; 1901, £797; 1902, £555; 1903, £647; 1904, £527. After examining details in the balance-sheet, and alleging that the wage-bill incurred by the concern is excessive, the paper proceeds to give this bold challenge :—

> If the corporation is unable to see its way to convert the annual loss on the baths into a profit, we are perfectly willing to take them over for a year and try the experiment ourselves. We are prepared to show how these baths should be run in order to make a profit! That's a fair challenge. We have thrown down the gage to the city fathers!

The situation is a dramatic one, and the enterprise of the *Express*, from the newspaper standpoint, deserves encouragement. Once let the paper get hold of these baths, and the rest would be easy. Coupons could be published entitling readers of the paper to free baths once or twice a week, and the cost could be debited to the advertising account. In this way the baths could be made, on paper, a huge financial success. But unfortunately — or, perhaps, fortunately—local authorities do not run newspapers.

How to Keep Officials.

THE resignations of Mr. Chamen, the electrical engineer to the Glasgow Corporation, and Mr. Charles King, the permanent way engineer in the tramways department, following closely upon that of Mr. John Young, the tramways manager, have induced the *Glasgow Herald* to moralise upon the difficulty of retaining the best men in the highest municipal posts. We do not often agree with the *Glasgow Herald*, which is not usually sympathetic towards the municipal movement, but we confess that in regard to this matter there appears to be good reason for apprehension. It is a significant fact that high municipal positions, demanding continuity of policy and management, are frequently becoming vacant, the reason being that the holders of them are tempted by offers of higher remuneration from private companies. All the officials to whom we have referred have left or are leaving the service of the Corporation for that of privately owned concerns. They have gained an experience with the Corporation from which various outside organisations will benefit, and local authorities throughout the country will soon have to decide how much longer this condition of affairs is to be allowed to go on. It is not in the best interests of local government that officials should be allowed to leave their positions as soon as they have established an undertaking and a policy, and give place to other gentlemen, probably just as able, but who have different ideas as to how things should be done, and who in applying those ideas spend large sums of public money. The really economical policy for corporations is to pay their responsible officials salaries sufficiently large to prevent the acceptance of offers from outside persons, and to secure, if possible, that those officials shall make agreements respecting their tenure of office. It is much easier for high officials to leave the municipal service at short notice than it is for those employed elsewhere.

London Steamboats.

THE London County Council is going ahead with its steamboats' scheme, and it is anticipated that most of the boats will have been delivered by the contractors by May, in which month it is proposed to inaugurate the service. Thanks to the happy idea of Mr. John Burns, it has been decided to name the new boats after distinguished persons more particularly connected with the Thames, either by reason of their having been born and having lived on the banks of the river, or by reason of their work in connection therewith. In the cabin of each boat will be placed a tablet containing a short historical note of the person after whom the boat is named. The fares will be on the following scale :—

	Single.	Return.
Not exceeding 3 miles ...	1d.	2d.
From 3 to 5 miles ...	2d.	3d.
From 5 to 8 miles ...	3d.	5d.
From 8 to 11 miles...	4d.	6d.
Over 11 miles ...	5d.	8d.

Workmen's fares at a penny single and twopence return for any distance are to be issued to all persons travelling by boats timed to arrive at the termini on week days by eight o'clock in the morning, and for this purpose Hammersmith, the Old Swan Pier, and Greenwich, are to be regarded as termini. As the service for the first year or so will be in the nature of things experimental, the questions of issuing season tickets and packets of tickets, and of making through bookings with the Council's tramways, are postponed for the present.

Official Advertisements.

COUNTY BOROUGH OF WEST HAM.

SUPPLY OF TRAMWAY UNIFORM, CLOTHING, CAPS, WATERPROOFS, &c.

THE Council hereby invite Tenders for the supply of Uniform Clothing, Caps, Waterproofs, &c., for Tramway Inspectors, Motormen, Conductors, &c.

Standard samples may be seen, and a form of specification and tender obtained at the office of Mr. H. E. Blain, Tramways Manager, West Ham Lane, West Ham, E., upon payment of One Pound, which will be returned upon receipt of a bona-fide tender.

Tenders, endorsed "Tender for Tramway Uniforms, &c.," to be delivered to my office, not later than 4 o'clock p.m., on Wednesday, 22nd March, 1905.

The Council do not bind themselves to accept the lowest or any tender.

The Contractor will be required to enter into a bond, with two sureties, for the due performance of the contract, and no work will be ordered under the contract until such bond has been duly executed.

The Contractor whose tender is accepted, and with whom a contract is entered into, will be required to pay direct to all workpeople employed in connection with this contract the rate of wages and observe the hours of labour specified in the Schedule attached to the form of tender. In the event of any breach of such agreement, the Council will enforce the penalty clause in its entirety.

By order of the Council,

FRED. E. HILLEARY,
Town Clerk.

Town Hall,
West Ham, E.,
9th March, 1905.

CITY OF LONDON UNION.

CONTRACT FOR PROVISIONS, &c.

THE Guardians of the Poor of the City of London Union are ready to receive TENDERS for the SUPPLY of the following ARTICLES, at the Infirmary at Bow, the Workhouse at Homerton, the Branch Workhouse at Thavies Inn, and at such other places in the Union as the Guardians may direct, for Six and Twelve Months, from the 27th March, 1905 :—

For Six Months.—Mealmen's Goods, Butchers Meat, Cheesemongers' Goods, Grocery, Fish, Tobacco and Snuff, Boots and Shoes, Leather and Grindery, Tailors' Goods, Haberdashery, Hosiery, Linendrapery, Brushes, Tinmen's Goods, Ironmongery, Engineers' and Gasfitters' Materials, Glass, Glass-Earthenware, etc., Timber, Tea.

For Twelve Months.—Books, Printing, Stationery, Porter and Ale, Milk.

Samples of the articles provided by the Guardians may be seen, as stated on the Form of Tender, and the Tenders must be for the supply of such articles according to such samples, and no other.

Further particulars will be stated on the Tender Papers, which may be obtained at the Union Offices, 61, Bartholomew-close.

The Tenders must be sent in on or before Monday, 13th March instant, on the printed forms only, and the parties whose Tenders are accepted will have due notice thereof.

The Guardians do not bind themselves to accept the lowest or any Tender.

EDWARD R. WOODWARD,
Clerk.

61, Bartholomew-close, E.C.,
23rd February, 1905.

ROUND THE UNIONS.—I.

What the Bethnal Green Union has to Teach in Regard to the "History Sheet System," Careful Out-Door Relief and Medical Relief on Loan. Finding Out Weak Spots in the Administration. How Rate-Aided Labour Competes with Free Labour. Strong Cases for the Local Government Board.

BETHNAL GREEN is chosen as the first of a series of notable Poor Law Unions, whose work and policy we hope to outline at a time when the need for firmer unification in the methods of Boards of Guardians is beginning to be widely recognised.

Three characteristic features of the work of Bethnal Green Union are (1) its history-sheet or ease-paper system, (2) its outdoor-relief policy, and (3) its methods of granting medieal relief. It does not claim to have originated these systems, but merely to have put them to the test of actual experienee. First as to the history-sheet. By this method the bare facts of an applicant's life and character are preserved on readily-aecessible sheets. The information entered is not very different from, but rather more extensive than, that which a *careful* officer would put in his application and report-books. In this separate form, focussed on one place, and not scattered through half-forgotten volumes, the history-sheet becomes to the keen guardians and officer the very embodiment of the case of the individual and all his family. It emphasises the fundamental prineiple of all corporate action by placing the family in its proper position, as the indivisible unit to civil life.

At Bethnal Green, all history-sheets are kept in proper eases, somewhat like book-shelves, in a gallery running across one end of the Relief Hall. Whenever an applieation is made, the relieving-officer makes inquiries of the history-sheet clerk whether there is an existing record. In four years the history-sheets at Bethnal Green numbered over 10,000, filed on what is called the Shannon Card Index System. Up to the present time they number 15,000. If there is a sheet, it is sent to the officer. If there is not, the admitting relieving-officer makes one out, and from that time forward case and history-sheet are wed; and great care is taken not to introduce discord in the shape of a duplicate history-sheet.

All cases go before the board of relief, which meets fortnightly, at ten a.m., and the Board alone grants out-relief to new cases, and settles questions of repayments. Sectional committees take the old cases in the afternoon at 2.30 p.m., and the members re-assemble in the Board Room at four p.m. to take the General Relieving Officer's and collectors' cases. There is an adjournment during the day. Persons admitted to the House come before the Settlement Committee; if to the schools, before both Settlement and School Committee; if to the infirmary, the Infirmary Sub-Committee; but at the infirmary, the history-sheet alone appears, and not the patient. It is a small but very important detail, that officers as well as guardians should always initial any entry they make. Of course, each committee has its own stamp of endorsing.

All "settled" cases have the words "Bethnal Green" in big letters stamped across them, and all "warrant" cases are stamped "warrant" in one corner (a round stamp, with red ink). Fraudulent cases have a blackened corner. Thus, a good deal of classification is done at the first glance.

One of the immediate benefits of this system is its simplification of classification—classification, the need for greater care in which we have so often called attention in these columns. To classify it is first necessary to know, and it is rightly held by this Board that two minutes spent in looking through a history-sheet will fully acquaint one with all the main facts of a man's life, from his birth to the hour he is standing before the Committee, including—most important detail!—all medical certificates belonging to the case. As to classification in the house, it is left largely to the master and matron; but, as the able Clerk (Mr. David Thomas) remarked to one of our representatives a day or two ago, "they largely classify themselves, just as people in the world outside choose out only those with whom they have some affinity."

It is not possible in the limits of our space to deal with all the advantages of this system. One is that it minimises the disadvantages of ehange of boards by elcction or otherwise. The new guardian has the judgment of his predecessor and the data on which he based that judgment before him, instead of all past efforts to deal with the case being buried in oblivion, and the same truth holds good with regard to the change of relieving-officers. Another benefit is the finding out of weak spots in the administration generally, and a further and very important one, the immense help it is in what is really at once the most hopeful and the most vital work of the Poor Law—the children.

BETHNAL GREEN INFIRMARY, CAMBRIDGE HEATH. VIEW OF A PAVILION.

Bethnal Green adopted this system from Paddington, and its adoption was largely due to the fact that the Union had already a small history-sheet for each child, drawn up in 1895 by the Clerk to the School Committee (Mr. Hamilton). These sheets recorded (1) general history as to parentage, place of birth, &c.; (2) minute details as to physical condition upon admission; (3) standard passed and educational qualifieations; (4) a report of the head school-teacher as to the child's general mental capacities. These sheets were revised from time to time, and were found to be extremely useful throughout the child's career. They are still kept, but are now supplementary to the one assigned to the head of the family.

Since 1883, relief in this union has been administered in a most careful manner under the following chairmen of the Board:

—Mr. T. W. Francis, Mr. T. H. Rippin, J.P., Mr. William A. Bailward, Mr. William J. Webster, Mr. J. Bedford, and Mr. Walter Eickhoff, who now holds office. An excellent chart has been prepared by Mr. Thomas of thirty years' pauperism, showing the mean number of persons in receipt of relief, &c., on Jan. 1 and July 1, in each of the years 1874 to 1903, divided into six classes—indoor poor, outdoor poor, lunatics, imbeciles, medical relief cases, and fever or small-pox cases. We need only concern ourselves with the first two.

Since 1883, the indoor poor have increased, with constant fluctuations, from 1,850 to 2,250, while outdoor-relief cases have dropped from 1,200 to 540.

A number of articles made at "sweated" prices by paupers in receipt of out-relief in Bethnal Green, which Mr. Thomas showed our representative, and which he is going to forward to the Local Government Board, bears silent but eloquent testimony to the evils of easy out-relief. "Putting aside all question of test of destitution, or saving to ratepayers," said Mr. Thomas, after showing these articles, "on this question alone I would restrict outdoor-relief." These articles were made by persons in receipt of out-relief at prices it is impossible for labour unaided by the rates to produce. The first article was a wire hat-shape in the latest style. Evidently a great deal of work had been expended upon it, and when completed the bonnet-shape maker, an old woman of seventy-six, was given the handsome sum of one penny. It was possible for her to exist and keep wages down at this terribly low rate of remuneration because she received 2s. 6d. weekly from the guardians. Tack and sweet-boxes, made by a box-maker, aged sixty-nine, were paid for at the rate of 2d. a gross. She could make three gross per day, all materials being supplied except paste. This was only possible because she was in receipt of 3s. weekly relief. Everyone knows the amount of sweated labour exerted on the making of match boxes, and our representative proceeded to examine a saucepan made of stout, well-shaped tin, for which a tinman, aged seventy-six, got 1d. for the making. His relief was 2s. 6d. weekly. Other articles are:—Brushes sold retail at 2s. 6d., price paid for making 1½d.; slippers sold at 5s. 11½d. per pair, price paid for making 8d.; heeling and finishing pair of child's shoes sold at 1s. 11½d., price paid 2d.; silk tie sold at about 1s. 6d., price paid for making ¾d., worker finding cotton, &c.; child's knickers sold for 5d. (to street hawkers), price paid for making 2d.; shirt,

MR. WALTER EICKHOFF.
(Chairman of the Board.)

price paid for making 6d. (one shirt takes one whole day to complete). In each of these cases, the worker was in receipt of relief, ranging from 2s. 6d. to 4s. 6d. weekly. In another case, a woman, aged twenty-two, whose husband was in the workhouse infirmary, and who had two young children dependent upon her, made shoe-boxes, for which she was paid the handsome sum of 1s. 6½d. per gross. These were sold at 12s. per gross. Her relief was in kind.

Bethnal Green's system of granting medical out-relief upon loan in the first instance has from time to time attracted much attention and criticism. The object of placing medical relief on loan is to prevent those who are able to pay for a private doctor going to the guardians for assistance. Before the system was adopted, people often went to the guardians for a doctor because "we pay our rates," as they said. At the present time, the relieving-officer is in a position to say: "You will have to repay this." The answer often is, "Oh, well, if we have to pay, we may as well have a doctor ourselves." If a man is in a benefit society, the guardians reduce his contribution accordingly.

"But," asked our representative, "does not this often end in the applicant calling in no medical assistance?"

"No," replied Mr. Thomas, "that is where so many people make a mistake. At the back of the medical relief order, it is printed in large letters:—'. . . the order will be granted free of cost, unless the guardians decide, after inquiry, that you are in a position to pay for medical relief.' I don't think a single case ever passed through our hands which did not have medical relief either from a private doctor or 'on application.' It is quite easy to distinguish a needy case, which is never abusive, as are those who feel they have something behind them. In the majority of cases, I may say, nothing is paid; but, on the other hand, we have recovered hundreds of pounds by putting the relief on loan when there is any doubt as to the *bona fides* of the applicant."

The Board has recently been trying to get the Local Government Board to pass a scheme whereby the medical officers of the Union will give the whole of their time to the work of the Union. This is somewhat along the lines of the scheme put forward by Lambeth, and already outlined in these pages.

By Royal Warrant to His Majesty the KING.

BOVRIL

Saves Money to the Treasurer;
Time and Trouble to the Staff.

Include BOVRIL in your form of tender.
Over 1,500 British Hospitals, Infirmaries, &c., use BOVRIL daily.

BOVRIL Limited, Food Specialists, 152/166, Old Street, London, E.C.

Our illustrations give some idea of the surroundings of the poor in the infirmary. This institution has only been opened five years, and everything is on up-to-date lines. The administrative block is in the centre of the building, and has three pavilions on each side, the whole being intersected in the centre by a corridor 740ft. long. This main corridor, the roof of which is flat, and may be used as a promenade in fine weather, is a special feature, as it affords easy and direct ingress and egress to and from all parts of the building, and may appropriately be designated the main artery towards which all communications lead. The building is certified for 669 patients. The steward's office, dispensary, stores, kitchen, laundry, needle-room, &c., while sufficiently divided, are in such close proximity to each other that the difficulties of supervision are reduced to a minimum. The pavilions are arranged so that the sun penetrates the airing courts during the greater part of each day, and attached to the south sides are airing balconies, to which the patients can be wheeled for "sun" baths.

A LARGE WARD (BETHNAL GREEN INFIRMARY).

A DIFFICULTY OF SITE-VALUE TAXATION.

(To the Editor.)

SIR,—One point in the proposals for the taxation of rating of site-values appears to have been hitherto entirely neglected, both by the opponents and by the supporters of those proposals. This is the enormous advantage which the separate valuation of site and buildings will give to the owners of building estates in improving neighbourhoods. At present,. such an owner is obliged either to sell outright or to let sites for fixed ground-rents. No doubt, in the purchase price or ground-rent the future increase of value is to some extent anticipated, but experience seems to show that the seller or lessor is very commonly obliged to give the purchaser or lessee a large portion.

In some growing towns, it is almost a recognised method of supplementing hard-won savings to take a site on the edge of the town, build a house and live in it for two or three years, and then sell at an enormous profit, and go further out, to repeat the process. A ground landlord, in such circumstances, must often have sighed for an elastic ground-rent, which would rise with the rise of site-value. He cannot have an elastic ground-rent at present, because the expense and uncertainty of a periodical valuation and possible resort to arbitration would be too great.

The new system will change all that by providing, year by year, free of all expense, except to the ratepayers in general, a trustworthy valuation of the site. We may reasonably expect that landowners will not be slow to avail themselves of the new machinery. Instead of asking for a fixed ground-rent of so many pounds, never to be increased during the lease, they will ask for a variable ground-rent equal to the site-value as determined by the assessment list for the time being. If anyone thinks that they are too stupid to see that this plan (especially if supplemented by a proviso that the ground-rent shall in no case fall below a certain fixed sum) offers much greater attractions than the present, let him reflect that the fact will be forced on their attention by the new provisions for allowing deduction of the site-value rate from ground-rent. No one will be so foolish as to let land on a long lease for a fixed rent, if that rent is to be subject to a rate which is likely to increase. Some benefit is usually bought with the money collected in rates, and therefore, if the landowner is compelled to pay, he will naturally endeavour to secure that he gets some of the benefit, and the most obvious way of doing so is to reserve the site-value instead of a fixed number of pounds.

I have my doubts whether this result will be altogether welcome to the supporters of site-value taxation; but I do not see how they can prevent it. They would surely never attempt to provide that no contract in which their own site-valuation was mentioned should be valid? And if they did, I do not think it would be difficult to find a way round the prohibition.—Yours, &c.,

E.C.

"MUNICIPAL FINANCE."

(To the Editor.)

SIR,—With reference to your article on "Finance," as relates to municipalities, and especially as to the issue of loans on deposit, perhaps it would be as well to say that only a very little has been done in this direction up to the present time. Birmingham, Bolton, and Sheffield have perhaps encouraged this deposit system more than others; but, if the list on page 45 of the Journal is carefully examined, it will be seen that not a dozen towns have adopted it: the rest of the towns mentioned state that they are raising their loans by actual mortgages, and not by way of deposit. The total amount of these deposits now in hand is considerably less than a quarter of a million; so this cannot be the cause of the bankers' uneasiness, unless it be the higher rate of interest now given to the working-classes to encourage them in these thrifty ways. This may possibly have influence in other directions. But why not? We live in a free country, and the banking shareholders must abide it. Even the "Investors' Chronicle" is turning against the bankers: witness the article on "The Investor and his Banker," by Mr. G. J. Holmes in the March number of that paper.

I do not know a single town with more than £100,000 of these deposits, while there are many savings bank deposits in the larger towns approaching a million, and surely the municipalities have a right to a share (and some think a large share) in the use of these local savings, especially as they are willing to pay a better rate of interest than the Government. This phase of the matter has been recently pressed on the attention of certain municipalities by a Leeds firm of accountants, which is offering its services to inaugurate a method something like the penny banks in Yorkshire. If the corporations went into the matter thoroughly, and advertised pretty widely in the local papers that they were prepared to take transfers from the trustee and post-office savings banks at a higher rate of interest, there is no doubt that a large amount would be transferred to them.—Yours, &c.,

Y. Z.

3rd March, 1905.

D. SANTONI & CO., LIMITED,

ELECTRICAL AND GENERAL ENGINEERS.

28, ELY PLACE, HOLBORN CIRCUS, LONDON, E.C.,

'FLAME' ARC LAMP

The most Economical and Efficient Street Lighting

DYNAMOS and MOTORS for DIRECT CURRENT.

GENERATORS, MOTORS, TRANSFORMERS for Single & Polyphase Current.

Contractors for Complete Lighting, Power and Traction Plants.

Telegrams: "SANTOCHIMO, LONDON."
A B C Code, 5th Edition.

Telephone: 4774 CENTRAL.

INCANDESCENT ELECTRIC LIGHTING!

THE GREATEST IMPROVEMENT DURING THE LAST 20 YEARS IS

LINOLITE

(LINE O' LIGHT.)

LINOLITE is ECONOMICAL, EFFICIENT, NEAT, SIMPLE, and easily adapted never in the way.

In LENGTHS, ONE to EIGHT FEET. WEIGHT, 6oz. per FOOT. LAMPS, 8·75 per C.P. Average LIFE, 1,000 HOURS.

The LINOLITE System showing succession of Lamps in Silvery Reflector, giving a brilliant direct Light, or pleasing and soft indirect Light, Suitable for either direct or alternating current.

Registered Trade Mark—"LINOLITE."

LINOLITE

IS INDISPENSABLE FOR

CORNICE, PICTURE, and SHOP WINDOW LIGHTING.

Its installation and up-keep costs less than the old systems.

TO BE SEEN IN USE AT THE

LINOLITE COMPANY'S OFFICES,

Telephone No. 244 Victoria.

25D, Victoria Street, WESTMINSTER.

NERNST ELECTRIC LAMP.

Patentees for United Kingdom,

The A.E.G. ENGLISH MANUFACTURING Co., Ltd.,

4, NEW COMPTON STREET,

Charing Cross Road, London, W.C.

The Ideal Lamp for Street Lighting.

DIALITE

THE STANDARD CABLE FOR ALL PURPOSES.

THE ST. HELENS CABLE CO., Ltd.,
WARRINGTON.

ELECTRICITY SUPPLY.

The Vexed Question of Tendering and the Necessity for Results being Published. Practices of Certain Corporations. Recent Modifications in the Methods of "Earthing." What Causes the "Blinking" of the Electric Light? Promising Outlook at Dartford. Results of Working at Birmingham, Barnsley, and Ashton-under-Lyne Compared.

THE Dartford Electric Lighting Order is dated 1898, but the supply was only commenced in 1901. For the three months' working to March 31, 1902, 11,951 units were sold, with a maximum load of 56 kilowatts; in the following year 130,400 units were sold, with a maximum of 90 kilowatts; and last year this was increased by some fifty per cent., as we show below. The undertaking is one of those mainly depending upon private supply of a lighting character, and consequently it would not be expected to show anything in the way of phenomenal results. To find, however, that its gross profit was less than the working expenses comes in the nature of a shock to those who are accustomed to the results of the early years of modern stations, of even small size. The results collected from the statutory form of accounts for the year ended March 31, 1904, were as follows:—

The revenue derived from sales of current, &c., amounted to		£2,389
And the working expenditure to		2,818
Leaving a nett deficiency of		£429
And in addition the following sums should have been paid out of revenue:—		
Interest on mortgage debt	£1,070	
Sinking fund and repayments	817	
Total of capital charges		1,887
Making a gross deficiency of		£2,316

This gross deficiency is almost equal to the total receipts, from which it would be fair to argue that the rates charged are excessively low, and should have been doubled during the initial stages of the business, afterwards being reduced as the undertaking made its way.

❦ ❦ ❦

Units Generated.

THERE were practically no outside sources of revenue, and the street lighting comprised only six arc lamps and 200 incandescents, the latter being equivalent to about 603 8-c.p. lamps.

DARTFORD.

	Units.	Yielding	Per unit.
Private consumers took	103,966	£1,427 =	3·294d.
Public lamps consumed	88,868	935 =	2·525d.
Interim total	192,834	£2,362 =	2·940d.
Meter rentals amounted to		20 =	·025d.
And sundry receipts to		7 =	·008d.
Total revenue		£2,389 =	2·973d.
Units used on works	17,649	(The maximum load was 160 k.w., equivalent to a load factor of 13·76 per cent.	
Total accounted for	210,483		
Utilised on distribution	54,120		
Total units generated	264,603		

The amount received was taken up and allocated thus:—

	Amount.	Per unit.	
Works' costs	£1,807 =	2·249d.	
Rates, taxes, and management	737 =	·917d.	
Total cost	£2,544 =	3·166d.	
Public lamp maintenance	274 =	·341d.	
Gross cost	£2,818 =	3·507d.	
Interest charges	1,070 =	1·332d.	2·349d
Sinking fund charges	817 =	1·017d.	
Total actual cost of units sold	£4,705 =	5·856d.	
Less deficiency for year	2,316 =	2·883d.	
Revenue in all	£2,389 =	2·973d.	

❦ ❦ ❦

Promising Outlook.

AS a reference to the capital account below will show, the expenditure on plant, &c., amounted to £34,018, a sum which has provided a system capable of supplying a much greater demand than anything that has as yet been called for. The outlook, therefore, is promising, if a vigorous policy which will attract custom is consistently carried out.

The details of the capital account were as follows:—

Lands	£1,189
Buildings	6,605
Machinery	11,563
Accumulators	852
Mains and services	8,869
Meters	1,676
Electrical instruments	82
Public lighting	629
Wiring of premises	704
Various, including capitalised loan charges	1,939
Total expenditure on capital	£34,108

❦ ❦ ❦

Tenders and Secrecy.

AT this season those corporations which adopt the principle of obtaining the materials required for their regular work under contract are considering tenders for the supplies to cover the needs of the ensuing year. It is unfortunate that so great a diversity should exist in the manner of tendering and in the forms of the specifications. Unnecessary trouble is caused to contractors, which has to be paid for in the long run by the consumer, and it is to be doubted if the complication which exists tends to efficiency or brings about any compensating advantage to the purchaser. There is no objection possible to the policy of purchasing goods required by open tender, provided they are not of a proprietary character, and that the specification is clear, although it would seem that in some cases the principle is pushed to undue limits, and quantities of articles are included which collectively represent only a few pounds. In these instances the labour is not well spent, for the trivial details could be bought in the open market at lower rates than are to be found in tenders. Again, instead of considering tenders as a whole, some corporations take the items independently, and purchase under contract from one firm those articles quoted at the lowest price, another firm getting others under like conditions, and so on. Another subject which requires attention in some quarters is the secrecy which is put around tenders. Considering that public money is being spent, and that the services of firms tendering are not recognised in other ways, we consider it only reasonable that the results should be published, or at least communicated to those who have taken the trouble to enter the competition.

❦ ❦ ❦

Earthing.

A SOMEWHAT intricate and involved topic of interest to engineers is "earthing," but its meaning is not quite clear to the majority of the users of electricity. The latter are being educated up to the use of metallic tubing or conduits for interior wiring, and, in spite of the cost incurred, all installations with any pretence at being first-class are carried out now in this way. The idea which first suggests itself to the layman is that he has, by paying the extra price, adequately protected himself and his chattels against risk, which risk is usually associated with fire, but the engineer is far from being able to take this sanguine view. For years it has been urged that the neutral of a three-wire system of distributing-mains should be connected to earth at the generating station, so that the pressure to which any user could receive in case of accidental shock would be half that on the mains, the pressure between the neutral or middle conductor and each of the outside cables being equal and respectively half that existing between the two outers. At first, this earthing was done by connecting the neutral direct to heavy earth-plates, and although there was no doubt that a good connection was made to earth it was found that the arrangement did not prove satisfactory. It was, indeed, too direct and good, for any leak was magnified, and instead of small fuses blowing or cutting out the defective portion of wiring, the current which passed for a very short space of time was sufficient to melt several of the larger fuses in its path, and as a result a more or less serious interference with the continuity of the supply was occasioned. After such experiences, resistances were inserted in the earth-connection, so that while the public safety received due consideration, the disturbing effects on the supply systems were minimised.

❦ ❦ ❦

Hints to Lay Readers.

THE history of the past has been repeated inside consumers' premises since conduit protection has been the rule. It is obvious that unless metallic conduits are connected so that they are electrically continuous, any one section would be charged up and, as in the case of the Fulham Baths accident, become a menace to safety of the person. Wiring rules, therefore, stipulate that the various portions are to be bonded or connected together, and the whole effectively earthed at one or more points. Having done this, it was thought that the solution to all difficulties had been found. But, alas! in the applications of electricity there is no finality, and there followed a series of incidents which called for some further modification. The direct connection was too good, and a fault on a branch circuit led to a large number of lights being extinguished. When this occurred, the momentary large current which melted the fuses pulled the pressure down locally, and consumers were annoyed by a blink on their lights. Hence, it is not merely sufficient to provide conduits, but these must be treated as the protection to street mains. They should, engineers now say, be kept clear of all metal work inside buildings throughout the entire run, and the connection to earth should be made through a resistance of such an amount that some check is placed upon the leakage current. This requires a sort of quasi-insulation to the conduits, so that the earth connection is restricted to a single and known point. Then the condition of the conduits and wiring can be tested, reducing the risk of fire to an infinitesimal amount, while safety from shock is ensured.

❦ ❦ ❦

Three Towns Compared.

WE give below a summary of the results of the working for last year of the municipal undertakings at Barnsley, Birmingham, and Ashton-under-Lyne. The profits are satisfactory, and details of the expenditure and receipts will be presented in a subsequent issue.

LOCAL AUTHORITY	(Borough of) BARNSLEY.	(City of) BIRMINGHAM.	(Borough of) ASHTON-UNDER-LYNE.
The revenue derived from sales of current, &c., amounted to	£8,348	£68,641	£11,278
And the working expenditure to	3,656	31,701	6,304
Leaving a gross profit of	£4,692	£36,940	£4,974
Out of this sum the following requirements were met:—			
Interest on mortgage debt	£1,082	£17,567	£2,103
Sinking fund and repayments	1,072	8,961	1,600
Total of capital and special charges	£2,154	26,528	3,703
Surplus for year	£2,538	£10,412	£1,271
Units sold	797,557	4,367,164	1,539,730
Maximum load	689 k.w	—	951 k.w.

In Use in over 100 CENTRAL and POWER STATIONS,
AND MANY THOUSAND PRIVATE INSTALLATIONS.

E. P. S. STORAGE BATTERIES

ARE MANUFACTURED ONLY BY THE

ELECTRICAL POWER STORAGE CO.,
4, GREAT WINCHESTER ST., LONDON, E.C.
Telegrams—"STORAGE," LONDON. Telephone—No. 1253, London Wall.

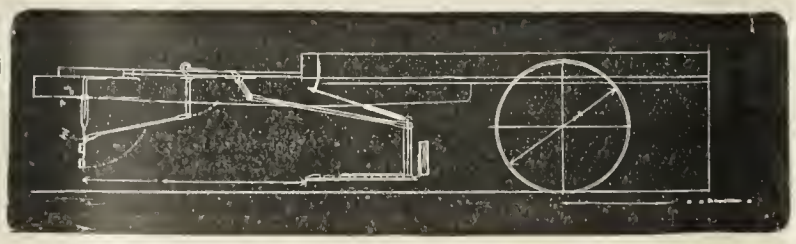
WM. GRIFFITHS & Co., Ltd.,
35 to 39, HAMILTON HOUSE, BISHOPSGATE STREET WITHOUT, LONDON, E.C.,
CONTRACTORS FOR CONSTRUCTION OF TRAMWAYS
AND MUNICIPAL WORK OF ALL DESCRIPTIONS.
QUARRY OWNERS AND STONE MERCHANTS.
LARGE STOCKS ON HAND OF
PITCHINGS, KERB, MACADAM, YORK STONE, JARRAH TIMBER, &C.
TELEGRAPHIC ADDRESS—"GRIFFITHS, STONE, LONDON." TELEPHONES—Nos. 2868 and 2869, LONDON WALL.

CONTRACTORS to the Cities of BIRMINGHAM, MANCHESTER, SWANSEA, and other PUBLIC BODIES.
IRON and STEEL BUILDINGS. ROOFS. CONSTRUCTIONAL IRON and STEEL WORK. GIRDERS, CISTERNS, TANKS.

G. E. EDWARDS & CO., VULCAN IRON WORKS, ASTON, BIRMINGHAM.

Pile Shoes. Fencing and Gates. Tar, Pitch, and Bitumen Boilers. Iron and Steel Door Frames. Forgings, Stampings, and Castings. Wrought Iron, Cast Iron, and Steel Window Frames. Fire and Smoke Boxes for Portable and Vertical Boilers.
Special Quotations for all kinds of Ironwork, Repairs, Steam Engines, Boilers, &c., &c.

THE . . .
STANDARD LIFE



TRIGGER GUARD.

LIST OF TOWNS USING GUARD.

Glasgow	Birkenhead	Hartlepool	Farnworth	Birmingham	Croydon	Newport	Pontypridd
Leeds	Oldham	Middleton	Rochdale	Bournemouth	Gravesend	Plymouth	Malton
Bradford	Halifax	Portsmouth	Warrington	London C.C.	Doncaster	Stonehouse and Devonport	Kilmarnock
Sunderland	Blackpool	Wallasey	Darlington	Cardiff	Gateshead	Rothesay	Ballarat
Newcastle	Burnley	Stockport	Wigan	Camborne and Redruth	Lancaster	Tyneside	Southend-on-Sea
Manchester	Darwen	Nottingham	Ayr	Huddersfield	New St. Helens	Wolverhampton	Scarborough
Cork	Ipswich	Nelson	Grimsby	Neath	Mandalay	Shipley	Wallsend-on-Tyne
Ilkeston	Burton	Hamilton and Motherwell	West Ham	South Lancashire	Kirkcaldy	Reading	Wakefield & District
Chester	Hull	Colchester	Rotherham	Paisley	Leicester	Preston	Cheltenham
Brighton	Swindon		Lowestoft		North Metropolitan		Lanark, &c., &c.

TIDSWELL'S PATENT AUTOMATIC TRAM CAR GUARD Co.
Write for Quotations. 23, BANK STREET CHAMBERS, BRADFORD. Write for Quotations.

TRAMWAY TOPICS.

The Motor 'Bus as an Auxiliary to, not an Opponent of, the Tramcar. Agitation for Change at Bolton, and the Reply of the Committee of the Council. Trial of a Couple of Petrol 'Buses Recommended by the Halifax Tramways Committee. A Yarmouth Award: Victory for the Local Authority.

THE motor 'bus question is agitating the minds of a small but noisy section of the Bolton townspeople. These people, or some of them, profess themselves dissatisfied with the position of the municipal tramways. What is the truth? The percentage of operating cost to total revenue on the Bolton tramway is as low as 58. The only town in the country that beat it is Nottingham, with 56 per cent. This is excluding tramways which have their own generating stations. The percentages at other important centres are given by the Board of Trade as follows:—Birkenhead 62, Blackburn 66, Burnley 70, Cardiff 62, Halifax 74, Hull 62, Liverpool 63, Manchester 64, Newcastle 66, Oldham 72, Salford 70, Sheffield 67, and Southampton 68 per cent. Bolton makes a gross profit of 42 per cent. And what about depreciation? The last report of the tramways manager (Mr. A. A. Day, C.E. and E.E.) shows that—

> Of 36 towns we are ninth in the percentage of depreciation of average capital, three of the number showing better percentages, having their own generating stations. The question of depreciation is the crux of the whole matter.

Bolton's liberal allowances in this direction are well worth quoting.

❦ ❦ ❦

Depreciation as Compared with Other Towns.

ON the track £360 per mile is allowed for depreciation, 10 per cent. on cars, 3 per cent. on buildings, and 5 per cent. on electrical equipment. The total depreciation taken from revenue up to March last was £118,000, and of this amount £79,729 has been paid off. Taking the capital cost, Bolton also stands in a good position. Including everything, the capital cost per mile of single track is £12,612, compared with Liverpool £17,580, Manchester £16,140, Nottingham £18,661, Oldham £15,164, Rochdale £16,113, Sunderland £14,188, Wigan £16,270, Leeds £13,550, Hull £14,117, Glasgow £16,000, and Cardiff £24,650. The *Bolton Chronicle* a couple or weeks ago had an article on the Council's tramways, giving this and much other information. We are glad to notice that it has now been reprinted in pamphlet form, some of the heads of which are:—"Replies to Pessimistic Critics," "A Few Speaking Figures," "Showing that Bolton Stands Well." Speaking as the man on the spot, the writer says:—

> Although the Bolton cars have not done all that was predicted for them, they have wonderfully improved the local service in cheapness and expedition, and as a matter of fact they will compare fairly as a whole with the best system in vogue in any part of the kingdom.

What more could be expected of them?

"No Adequate Return."

IN alluding to the agitation for the motor-'bus, which we believe obtains only in regard to one district of Bolton, it is pointed out—what we have more than once stated—that two factors tend to the staying power of the tramcar. First, it is cheaper, and likely to remain so; and second, the bogey car can convey double the number of passengers than can be crammed into the largest motor-'bus. We may add that a committee of the Council has gone into the whole matter, and has satisfied itself that there would be no adequate return as a result of a change of the tramway policy.

❦ ❦ ❦

Attitude at Halifax.

NO one will deny that the motor 'bus may fill a very important place in, say, very scattered districts or in narrow, congested thoroughfares. The Halifax Tramways Committee feels itself justified this week in recommending the Town Council to try a couple of petrol omnibuses. In the Halifax district, there are several places desirous to have improved communication with the town by means of tramway extensions, but owing to the cost this has not so far been possible. The Tramways Committee believes that the difficulty can be overcome by the introduction of motor omnibuses. For instance, the Corporation tramcars run from the centre of Halifax to Pellon. The distance from this place to Mount Tabor and Wainstalls, outlying portions of the borough, is about two miles, which could easily be covered by the omnibuses. The proposed 'buses are to be of the Milnes-Daimler type, each to cost £950 and seat 36 passengers. It behoves the Council, before passing this recommendation, to satisfy itself that a tramway would not better serve the needs of these districts.

❦ ❦ ❦

Yarmouth and B.E.T. Co. Award.

THE Great Yarmouth Corporation has gained a decided victory. For the Gorleston and Southtown tramways (two miles 57 chains, single track), the British Electric Traction Company asked the local authority something like £19,000. Mr. Graham Harris' the Arbitrator appointed by the Board of Trade to fix the amount to be paid, has now given his award. The price at which the Corporation will take over the undertaking—track, cars, horses, and depot—has been fixed at £13,100. In addition, however, it will have to pay the value of the fodder in stock at the time of the transfer, and further to pay the company's legal costs.

The Board of Trade and Manchester.

THE Board of Trade has decided to adopt the recommendations of its inspector, Colonel Von Donop, on the question of the distances at which the tramcars should be apart when running, and also as to the restriction which should be placed on the use of certain lines. This will allow the cars in the central parts of the city to approach each other very closely. In the outer districts a distance of 25 yards is to be maintained between the cars.

❦ ❦ ❦

Tramway Men at Play.

IN connection with the West Ham Corporation Tramways Athletic and Social Club, a highly successful social and dance was held in the Alexandra Hotel, Stratford, a few days ago, when about 250 of the employees and their wives and friends were present. An excellent programme was submitted, the music for the dances being furnished by Mr. J. Humphrey's quadrille band. The chair was taken by the tramways manager (Mr. H. E. Blain), and amongst those present were the Mayor and Mayoress of West Ham (Alderman and Mrs. John Byford, junior), Alderman and Mrs. Ivey, Alderman and Mrs. Bishop, Councillor and Mrs. Littler, Councillor and Mrs. Stoner, Councillor and Mrs. Hurry, Councillor and Mrs. Enos Smith, Councillor and Mrs. Woodward, and Mrs. Blain. During an interval in the programme the tramways manager reminded those present that the social was taking place on the first anniversary of the opening for traffic of the West Ham Corporation tramways. During the year just completed, 14,587,649 passengers had been carried; the cars had run 1,141,686 miles, and consumed 1,184,151 Board of Trade units of electrical current. The traffic receipts were, roughly, £52,000, the total receipts being about £58,000. The route mileage of track now being operated amounted to 9 miles 6 furlongs, which would be materially increased during the coming year owing to the electrification of the horse-car lines now proceeding. The Mayor and the Chairman of the Electric Lighting and Tramways Committee (Alderman W. Ivey) responded; and the latter said that, as chairman, he was proud of a tramways system which had beaten the record of any undertaking in the country so far as regards its success at so early a stage of its inauguration. The arrangements for the evening were carried out by the committee of the club, of which Mr. G. E. Broom is the hon. secretary.

❦ ❦ ❦

Municipal Tramways Amateur Football League.

	Plyd.	Won.	Lost.	Drn.	Goals For.	Goals Agst.	Pts.
Sheffield...	6	4	1	1	14	4	9
Manchester	5	4	1	0	14	7	8
Liverpool..	7	2	3	2	8	13	6
Southport.	6	2	3	1	7	13	5
Wigan ...	8	1	5	2	8	14	2*

* Two points deducted by order of the League Committee, 17th January, 1905.

Results of matches played February 23rd and March 2nd, 1905:—Manchester, 1, Sheffield, 0; Sheffield, 2, Wigan, 0; Southport, 0, Liverpool, 0.

DICK, KERR & Co., LIMITED.
ABCHURCH YARD, CANNON STREET, LONDON, E.C.
Contractors for Municipal Lighting and Tramway Schemes.
Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.
Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street.
Glasgow—163, Hope Street.

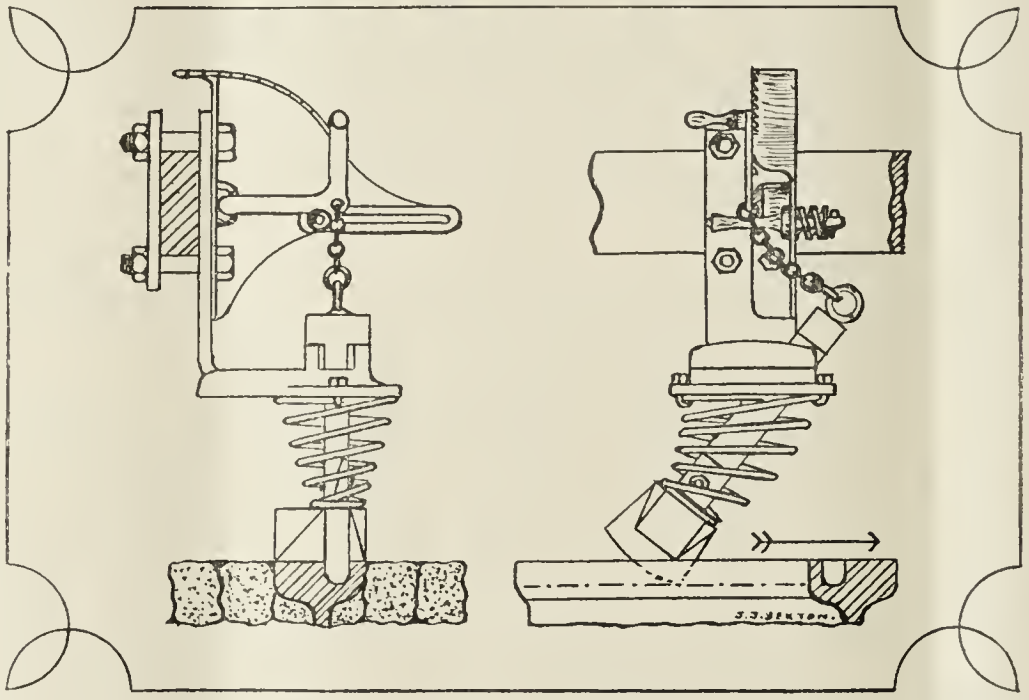
JERRARD'S RAIL CLEANERS IMPROVED AND PERFECTED.

What Tramway Engineers have been looking for is now to be obtained in

JERRARD'S IMPROVED (PATENT) AUTOMATIC RAIL CLEANER.

CHEAP.

SIMPLE. EFFICIENT.



RELIABLE. DURABLE.

Can be fitted to any car, whether fitted with track brakes or not, without drilling holes or making any alteration to the car.

Can be fixed in less than half an hour.

Can be fitted with an arrangement to lift the cleaning portion out of service if desired.

Does not leave the rail at the sharpest curves.

Is extremely portable, and does not materially add to the weight of the car.

For Full Particulars and Price, apply—

JERRARD'S AUTOMATIC TRACK CLEANERS, Ltd.,

598, COMMERCIAL ROAD, LONDON, E.;

OR TO SOLE AGENTS,

BRITISH GRIFFIN CHILLED IRON & STEEL CO., Ltd., 139, CANNON STREET, LONDON, E.C.

"MUNICIPAL JOURNAL" ANALYSES OF ELECTRIC TRAMWAY ACCOUNTS.

1903-4.

	Population.	Date tramways started.	Length of street route. Miles.	Gauge. Ft.	In.	Capital outlay. £	Number of passengers carried.	Number of car miles run.	Total receipts. £	Working expenses. £	Percentage of expenses to rec'pts %	Nett receipts. £	Percentage of nett receipts to capital. Per cent.	Interest charges and lease rentals. £	Repayment charges. £	Surplus (+) or loss (−). £	Provision for depreciation and reserve. £	Contribution to rate fund.	Traffic receipts per car mile. d.	Expenses per car mile. d.	Average fare per passenger. d.	Electricity supplied by	Number of B.O.T. units used.	Price paid or cost of electricity per unit. d.
Aberdeen ..	165 000	Aug., 1898	14·14	4	8½	314 407	15,538,167	1,379,723	64 071	37 054	58	27.017	8·59	10,389	2,397	+14,231	14,231	nil	11·00	6·45	·98	Elec. Dpt.	1,525,708	1·52
Ayr	33.000	Sept., 1901	5 69	4	8½	71.775	3 316.380	353.945	14.334	7 622	53	6,712	9 35	2,303	891	+3,518	3 518	nil	9·46	5·17	1 01	Elec. Dpt.	324,157	1 30
Birkenhead ...	113.300	Feb., 1901	13 52	4	8½	345,960	11,327.932	1 349.701	55,946	34.748	62	21.198	6·13	10,538	8.777	+1,883	1,883	nil	9·72	6·18	1·16	Own wrks	2,128,607	·72
Blackpool ...	50 000	1885	9·62	4	8½	267,178	6 357,218	735,103	42 061	27 873	66	14,188	5·31	8 422	5 713	+53	nil	nil	13·50	9·10	1·56	Elec Dpt.	1.008.529	1·83
Blackburn ..	188 000	1887	14 13	4	0	320.203	7,742 692	951,484	44.682	29 369	66	15.313	4·78	8,818	11 633	—5.138	nil	nil	10·94	7·41	1·34	Elec. Dpt.	1.785,712	1·50
Bolton	171 100	—	25·13	4	8½	504,509	19.895,496	2 188 030	95,096	54.7·6	58	40.380	8·00	12,233	13 654	+14,493	12 233	2.260	10·33	6·00	1·14	Elec Dpt.	3,098,292	1·25
Bournemouth ..	60 000	July 1902	12·25	3	6	257 812	9.363 985	1,022,164	54.397	30.276	56	24,121	9·36	9.051	7.336	+7,734	nil	nil	12·31	7·11	1 34	Own wrks	1 601 039	·86
Bradford	324,000	July, 1898	48·2	4	0	818 205	39,639,44	4,546.942	197 438	135,869	69	61.569	7·52	*48,169	—	+13 400	2.917	nil	10·20	7·17	1·17	Elec. Dpt.	7 731 563	1 0 5
Brighton	123 500	Nov. 1901	9·95	3	6	242 811	10 999 046	1,151,477	46 264	40,356	87	5.908	2·43	7,199	3.488	—4 779	nil	nil	9·60	8 41	1·00	Elec. Dpt.	1,774,988	1·50
Burnley	154,000	Dec., 1901	10·77	4	0	176,468	7,514,063	896,397	43,738	30,644	70	13,094	7·42	6,132	3,426	+3,536	3,536	nil	11·58	8·20	1·38	Elec. Dpt. & Nelson Crp.	1,461,700	1·79
Burton-on-Trent .	52 000	Aug., 1903	5 74	3	6	82.500	2,566,134	282 378	11,943	8 919	75	3.024	3 67	1,533	773	+718	718	nil	9·84	7 58	1·08	Elec. Dpt.	362 827	1·46
Cardiff ...	168,000	May, 1902	14 63	4	8½	687,222	23,574,204	2 643 762	105.017	65 351	62	39.666	5·77	19.219	14,084	+6.363	403	642	9·24	5·93	1·04	Own wrks	5,896 506	·45
Chester	39,000	April. 1903	2·50	3	6	66,098	2,002,835	260,785	8.916	5.332	60	3,584	5·42	2,026	1,218	+340	nil	nil	8·17	4 91	1 06	Elec. Dpt.	239,072	1·75
Darwen	40.000	Oct., 1900	4 36	4	0	79 272	2,236 102	253 345	12 371	8 413	68	3,958	4·99	2,411	1,982	—435	1 050	nil	10 92	7·97	1 24	Elec Dpt.	422 583	1·71
Dover	42,000	Sept., 1897	3·00	3	6	41.850	2,871.332	280 901	11.839	8 714	74	3,125	7·47	*2,205	—	+920	nil	nil	9 63	7 45	·94	Elec Cpy.	319,413	2·75
Dundee	163,000	July, 1900	12 65	4	8½	263,382	11.420,985	942,969	44,437	28,521	64	15.916	6 04	6.837	5.000	+4 079	2 842	nil	11 15	7· 6	·92	Elec Dpt	1,661,721	1·49
East Ham ...	104,000	June, 1901	6 82	4	8½	135 591	12,950,269	807 002	35.301	24 262	69	11.039	8 14	5,806	3.285	+1,948	1 356	nil	10 20	7·22	·64	Elec. Dpt.	920 696	1·75
Farnworth ...	50.000	Jan., 1902	4·33	4	8½	43.696	1,532,293	242 524	7.486	4 850	65	2,636	6 03	3 241	1,175	—1,780	nil	nil	7 40	4·80	1·17	Elec Dpt.	317,126	·50
Glasgow ...	1,000,000	July, 1894	70 34	4	7¾	2,107,880	188.962 610	16,291.082	724.851	356.820	49	368.031	17·46	64,376	45.553	+258,102	233,102	25 000	10·58	5·26	·91	Own wks.	15,372 6 9	·42
Halifax	168,000	June, 1898	33 41	3	6	342 460	16 322 059	1 387 885	68.289	50,758	74	17.531	5 12	9 957	7 081	+493	493	nil	11 76	8 78	1 00	Elec Dpt	2 659 92	1 62
Huddersfield ...	100 000	Feb., 1901	28	4	7¾	411 722	11 869 287	1.632 000	65.883	34 665	53	31 218	7·58	13 632	10.638	+6.948	11.687	nil	9 37	5 10	1 28	Own wks.	2.565 643	·34
Hull	248 000	July, 1899	13 60	4	8½	383,977	24 220 718	2 512 821	101.259	63 194	62	38.065	9 91	9 932	9 148	+18 985	7.485	11 500	9 61	6 04	1·00	Ow wks	3 285.621	63
Ilford	52,000	Mar. 1903	6·50	4	8½	132.874	5,274.025	577 034	23 218	13.568	58	9 650	7·26	3 046	2.033	+4.571	4,571	nil	9 39	5 64	1 03	Elec. Dpt.	563 464	1·50
Kirkcaldy ...	34,100	Feb, 1903	5·25	3	6	78,731	2 770,936	301,779	10.189	7.623	75	2 566	3 26	2 012	471	+83	40	nil	7 90	6 06	·86	Elec. Dpt	395 071	1·75
Lancaster ...	40.300	Jan. 1903	3·41	4	8½	27,207	1.079.772	153 692	4,191	4 654	111	loss 463	—	1 245	1 125	—2 833	nil	nil	6·54	7 27	·93	Elec Dpt.	199.6 0	2 00
Leeds	446 400	Feb, 1894	42·51	4	8½	1,107 977	60,739 234	6 091 437	281.418	155 598	55	125,820	11 36	27 639	27 094	+71.087	19 087	52.000	10.94	6 13	1·10	Own wks	9 518.680	·34
Liverpool... ...	760,000	1868	57	4	8½	1,863,485	113,057,234	11,734,838	533.394	335,621	63	200,773	10·77	52,932	51,598	+96.243	64.162	32,081	10·73	6 86	1·11	Elec Dpt. & Bootle Crp.	17,978,718	1 08
Manchester ...	750.000	June, 1901	79·49	4	8½	1.485 612	120,772.368	13 759 071	611.881	392 504	64	219,377	14 77	72,781	26 903	+119	69.693	50,000	10 52	6·85	1·20	Elec. Dpt.	16.815,764	1·49
Nelson	36,000	Feb., 1903	2·74	4	0	30.493	1,420 759	171,132	4,655	3.563	77	1,092	3 58	781	232	+79	nil	nil	6 47	5 00	·78	Elec. Dpt.	170.611	2·00
Newc'stle-on-Tyne	257 000	Dec., 1901	23·36	4	8½	1,054.493	39.715.120	4 059 907	184 170	120.700	66	63,470	6 02	28 896	22 638	+11,936	nil	nil	10 68	7 14	1·09	Own wks.	7.757 885	·36
Newport ..	76 000	April, 1903	8·50	4	8½	164 219	4,473,411	635,000	23.653	15.533	66	8 120	4 95	4,360	3,360	+400	nil	nil	8 63	5 87	1·22	Elec. Dpt.	641,860	1·50
Nottingham ...	240,000	Jan., 1901	16·25	4	8½	559,838	27 876 889	2 512 000	128.202	71 259	56	56,943	10·17	15,333	15.128	+26.482	13,482	13,000	12·07	6 81	1·09	Elec. Dpt.	3 768 601	1·25
Oldham	100 000	Dec., 1900	17 93	4	8½	432.188	12.968,880	1,420.455	60 413	43.286	72	17.127	3 96	15,324	9,629	—7.826	nil	nil	10·01	7·31	1·10	Elec. Dpt.	2,177,309	1·50
Portsmouth ..	198,000	Sept., 1901	14·50	4	7¾	634,406	18.204 426	1,828,193	92 917	43.427	47	49,490	7 80	18 343	15.119	+16 028	16 028	nil	11·46	5·70	1 15	Own wks.	2.695.605	·55
Rochdale	86,000	May 1902	3·96	4	8½	83,386	1.156.300	194.490	6 981	6.761	97	220	·26	2 851	1.406	—4,037	nil	nil	8·42	8·34	1·42	Elec. Dpt	393 180	1·47
Rotherham ...	58,000	Jan., 1903	8·33	4	8½	105,762	4,914 479	525 840	21,341	15 602	73	5.739	5 42	2 088	1,261	+2.390	2,407	nil	9 57	7 12	1 02	Elec. Dpt.	806.291	1·50
Salford	300,000	Oct., 1901	32·50	4	8½	511,170	36,956,405	4,726,446	198,648	139,508	70	59,140	11 57	27,529	16,171	+15,440	3,440	12,000	10·08	7 09	1·29	Elec. Dpt. & Man. Cp.	6,102 524	1·89
Sheffield	425 000	1872	32·50	4	8½	988,316	61.450,993	5.768,231	233.829	156.403	67	77.426	7·83	30 722	19 394	+27 310	33.771	8.249	9 67	6·51	91	Own wks.	9.460.618	·48
Southampton ..	107 800	July, 1898	9 72	4	8½	198.621	9,890,952	1,144.350	53,501	36 640	68	16 861	8·49	5 935	4 720	+6.206	1 206	5,000	10 88	7 68	1·26	Elec. Dpt.	1,298 392	2 25
Southport ...	49.000	June, 1900	8·42	4	8½	118 364	3.837 208	431.019	17.646	10.986	62	6 660	5·63	3 803	3.198	—341	nil	nil	9 63	6 12	1·08	Elec. Dpt.	492.261	1·50
Stockport	110,000	Aug., 1901	12·27	4	8½	140.276	3.170.854	606.476	19 074	12 914	68	6 160	4 39	4.196	1 334	+630	nil	nil	7 37	5·11	1·41	Elec. Dpt.	790,892	1·50
Sunderland ...	158.900	June. 1900	10·92	4	8½	277.240	14 848 958	1 433 463	62 669	36,517	58	26.152	9 43	8.241	8,330	+9 581	5 567	4 014	10·46	6·11	1·01	Elec. Dpt.	1 562 748	1·87
Wallasey... ...	56.500	Mar., 1902	8·48	4	8½	127.949	6 564.493	757,688	35 873	24.980	70	10.893	8 51	4.064	1 618	+5.211	4 500	2 650	11 17	7·91	1·29	Elec Dpt.	1.243 340	1·63
Warrington ...	80.000	April. 1902	6·42	4	8½	94 563	3 940 305	419 036	16,264	12 012	74	4 252	4 50	3.024	2,011	—783	nil	nil	9 15	6·88	·97	Elec. Dpt.	496,268	1·90
Wolverhampton.	94 200	Mar., 1902	7·33	3	6	183 840	4 555.435	507 527	23 591	14.911	63	8 680	4 72	5,278	2 293	+1 109	3 475	nil	10·97	7·05	1·22	Elec Dpt.	773,208	1·66
Yarmouth ...	35 000	June, 1902	3·59	3	6	44.149	1.611.699	222,350	7,876	5.939	75	1 937	4 39	1.570	582	−215	nil	nil	8·33	6 41	1 15	Elec. Dpt.	172,939	2·50

* Includes Repayment Charges.

SEWAGE PURIFICATION.

THE

SEPTIC TANK Co.

FOR

COMPLETE INSTALLATIONS
AUTOMATIC APPARATUS
to meet all requirements.

GOLD MEDAL,
ST. LOUIS, 1904.

The SEPTIC TANK Company, Ltd., 1, Victoria St., Westminster.

FIREPROOF CONSTRUCTION.

If you intend to Build, you will require some good form of Fireproof Construction.
You would do well to file particulars of the

DOVETAIL CORRUGATED SYSTEM,

USED LARGELY BY ALL LEADING MEN FOR

FIREPROOF PARTITIONS,
FLOORS,
CEILINGS,
CASINGS, &c.
COMPLETE BUILDINGS, &c., &c.
Also EXTERNAL STAIRCASES AND EMERGENCY EXITS.

PARTITIONS AT TWO INCHES THICK.

INFLUENTIAL AGENTS WANTED IN SEVERAL LARGE TOWNS.

SOLE MANUFACTURERS,

The FIREPROOF COMPANY, Limited,

CONSTRUCTIONAL ENGINEERS
AND FIREPROOFING SPECIALISTS.

10, YORK BUILDINGS,
ADELPHI, LONDON, W.C.

PRUDENTIAL ASSURANCE COMPANY, LIMITED.

CHIEF OFFICE: HOLBORN BARS, LONDON.

Invested Funds Exceed £55,000,000.

SUMMARY OF THE REPORT

presented at the Fifty-sixth Annual Meeting held on 2nd March, 1905.

ORDINARY BRANCH

The number of Policies issued during the year was 71,874, assuring the sum of £6,954,650, and producing a New Annual Premium Income of £377,587.

The Premiums received during the year were £3,969,016, being an increase of £154,160 over the year 1903.

The Claims of the year amounted to £1,654,753.

The number of Deaths was 7,139, and 6,259 Endowment Assurances matured.

The number of Policies in force at the end of the year was 742,147.

INDUSTRIAL BRANCH.

The Premiums received during the year were £5,979,335, being an increase of £132,781.

The Claims of the year amounted to £2,230,180. The number of Deaths was 233,015, and 3,066 Endowment Assurances matured.

The number of Free Policies granted during the year to those Policyholders of five years' standing who desired to discontinue their payments was 112,606, the number in force being 1,003,377. The number of Free Policies which became Claims during the year was 22,211.

The total number of Policies in force at the end of the year was 15,577,161; their average duration is ten and three-quarter years.

The Assets of the Company, in both branches, as shown in the Balance Sheet, are £55,359,505, being an increase of £4,142,128 over those of 1903.

The Staff Provident Fund, which was founded in 1898 for the benefit of the outdoor staff, shows a satisfactory increase for the year, the total amount standing to the credit of the Fund being £138,280.

Messrs. Deloitte, Dever, Griffiths and Co. have examined the Securities, and their certificate is appended to the Balance Sheets.

FREDERICK SCHOOLING,
Actuary.

D. W. STABLE,
Secretary.

THOS. C. DEWEY,
General Manager.

The full Report and Balance Sheet can be obtained upon application.

THE SURVEYOR AND CONTRACTOR.

Schemes in Progress and Suggested. Tenders Open. New Inventions for Local Government Enterprises. The Latest Patents.

ELECTRICAL EXHIBITION AT BEXHILL.

A VERY successful electrical exhibition has just been brought to a close at Bexhill.

It was promoted and carried through chiefly by the untiring energy of the borough electrical engineer (Mr. W. T. Le Feuvre, A.M.I.E.E.), whose Council, at his suggestion, decided to demonstrate to ratepayers and the public generally the use of electricity for cooking as well as lighting. This was accomplished in a very practical way, for at the end of the Kursaal (in which the exhibition was held) a stand was erected, where soups, fish, and joints were being electrically cooked and served to visitors, at popular prices. This proved a great attraction, and was highly instructive.

On the 23rd ult. a luncheon was given to the chairman of the neighbouring electricity committees, his worship the Mayor (Earl De La Warr) presiding, supported by Sir Joseph Renals, and Councillor Douglas (chairman of the Bexhill Electricity Committee). The whole of the luncheon was electrically cooked by apparatus supplied by Messrs. Isenthal and Co., of 85, Mortimer Street, W.

After the "King" had been honoured Mr. Park Goff proposed the toast of "The Exhibition," and congratulated the Corporation in bringing such an exhibition before the public. He claimed all the credit for Mr. W. T. Le Feuvre for the success of the enterprise, and observed that electricity was daily eliminating the word "impossible" from our dictionary.

Councillor Douglas and Mr. Le Feuvre responded, the latter referred especially to the cooking exhibit, and said the menus prepared would compare favourably with those of the best hotels. Reference was made to the untiring efforts of his staff.

Mr. J. Christie, of Brighton, and Mr. Councillor Bones, of Hastings, also congratulated the Corporation.

Chief among the exhibits may be mentioned those of Messrs. D. Santoni and Co., Limited, electrical and general engineers, of 28, Ely Place, Holborn Circus, London. An exceedingly attractive exhibit was their new type of "Golden Flame" arc lamps. Four of these lamps were fixed on the front of the Kursaal, and it was observed that whilst taking only eight amperes of current, they gave a most powerful light of over 2,000 candles each, whereas the old type of alternating current lamp would not produce a lighting effect of more than 300 candles with the same current.

The firm also had a very interesting show of modern high-class machinery for power transmission. They represent in this country the large and important mechanical and electrical engineering works of Messrs. J. J. Rieter and Co., of Winterthur, Switzerland, who have been established over a century, and have equipped some of the largest works in the world, and also power stations for producing electricity at extra high-pressure (13,000 volts and over), with both steam and water power, and some important electric railways.

Mr. Sandys Ball, the firm's South Coast representative, must have received many inquiries from the engineers and other professional men present concerning the ingenious appliances and machines illustrated in Messrs. D. Santoni and Co.'s catalogue. In this, prominent place is given to electric generators up to 3,000-horse power of both continuous and three-phase current. The design and workmanship of the powerful motors were generally pronounced to be of superior merit.

Among the further exhibits of this enterprising firm were an array of "Miniature" arc lamps, barely a foot in length, and undoubtedly most useful for lighting shop windows, show-rooms, &c., and an assortment of water-tight porcelain and iron fittings for outdoor lighting, mines, quarries, &c., together with a great variety of switchboard instruments, battery regulators, motor starters, &c.

The Linolite Company, of 25, Victoria Street, Westminster, also had an important exhibit in their "Linolite" (line o' light) which, by reason of long life and high illuminating power is likely to supply a distinctly-felt want, and be much heard of in the future. Indeed, it is claimed for the system that it is the greatest improvement in incandescent electric lighting that has been made during the last 20 years. Economy, efficiency, neatness, compactness, and simplicity of adjustment are some of the advantages claimed—and, apparently, rightly so—for these lamps. Linolite is made in lengths of one to eight feet. It weighs 6oz. per foot, and the lamps take 3·75 watts per candle-power, with an average life of 1,000 hours. When it is added that they may be so adjusted as either to give a brilliant direct light or a pleasing and soft indirect light, it will be at once seen how indispensable the system is for cornice, picture, and shop window lighting.

At the request of the firm, Mr. J. S. Dow, A.C.G.I., of the Central Technical College, South Kensington, subjected eight Linolite lamps to various severe tests, in order to estimate their efficiency and durability. His report, which we have seen, is in the highest degree favourable. Mr. Dow has also prepared a separate report on the photometry of Linolite, which clearly demonstrates the admirable way in which the light generated is rendered utilisable.

In order to see whether the reflector behind the lamp had any prejudicial effect on the life of the lamp, four of the lamps were run *not* placed in the reflector and the remaining four were placed in the reflector while the lamps were allowed to run. The potential difference (voltage) to which the lamps were subjected was susceptible to a change of 3 per cent. to 4 per cent. up or down, and the results therefore may be taken as being obtained under the same conditions as would usually be experienced by the lamps when in ordinary use.

These results were such as to lead Mr. Dow to summarise his report as follows:—

"The average decrease in candle power during the first 1,000 hours of life is about 15 per cent., and the reflector does not exert a prejudicial effect on the life of the lamp. Throughout the test the watts consumed by each lamp remained practically constant. With bad types of lamps it is often found that, not only does the candle-power of the lamp decrease as the life progresses, but the lamp actually takes more energy, and while the consumer receives less light he pays more for it. It is therefore satisfactory to note that the Linolite lamps tested gave no signs of this defect."

PERFORATED IRON AS A ROAD FOUNDATION.

THE following indictment has been brought against cement when used, as it commonly is, as a foundation for roads:—That it gives rise to bad drainage and offensive smells arising therefrom: that it is expensive to lay and expensive to take up for repairs; that it is wasteful, time being required for the cement to dry before the blocks can be laid on it; and that it requires five times the cartage that would be required for an iron foundation.

Mr. A. W. Moore, 12, Chatham Place, Hackney, N.E., is a well-known engineer and inventor, and, after bringing the above indictment against the old system, he demonstrates the superiority of a perforated iron foundation he has patented. The perforated plates or trays, which may be used for platforms or stairs as well as for roads, are exceedingly durable, and the work of laying or repairing is estimated to take only half the time taken when a cement foundation is used. It is also claimed for the newer system that its adoption would lead to advantages in several ways. For instance, by plugs or sink traps, tram-

"STONWOD"
FIREPROOF FLOORS.

A Fireproof, Acidproof, Aseptic, Dustproof, Verminproof Floor Covering, which will outwear Concrete, Wood Blocks, or any other form of floor surface.

IT IS CHEAP, SILENT, DURABLE, WARM, & EXCEPTIONALLY SANITARY.

SPECIALLY RECOMMENDED FOR EMPLOYMENT IN

Hospitals, Churches, Schools, Factories, Warehouses, Shops, Flats, Corridors, Offices, &c.

SEND FOR SAMPLES AND DESCRIPTIVE PAMPHLET TO

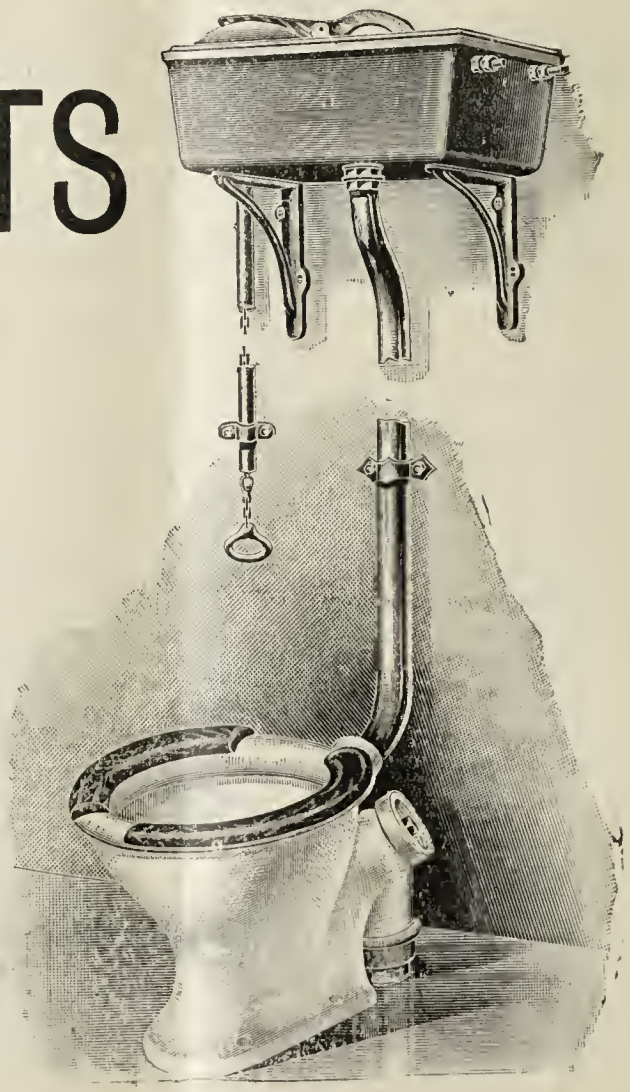
THE STONWOD FIREPROOF FLOORING CO., LTD.,

109, Victoria Street, Westminster,
London, S.W.

Works: ASHFORD, MIDDLESEX.

Telegrams—"Stonwod, London." Telephone—5286 Westminster.

DOULTON'S
SPECIAL
SCHOOL CLOSETS
FOR
INFANTS AND CHILDREN.



These Closets are only 13½in. high, and are specially suitable for children. The pan and trap is in one piece, with brass inspection cap, and cleanses well with a 2-gallon cistern. It is made in two patterns, one with fixed side pieces, the other with lugs to take a hinged seat. Also made with side outlet.

DOULTON'S SPECIAL LIST OF SANITARY FITTINGS SUITABLE FOR SCHOOLS SENT ON APPLICATION.

Every description of High-class Sanitary Fittings for Mansions, Hotels, Clubs, Hospitals, Schools, and Public Buildings of all kinds to be seen in action at Showrooms—

ALBERT EMBANKMENT, LAMBETH, LONDON, S.E.

lines and other obstacles might be bolted to the plates, which would thus act as a foundation in a double sense. We understand that the inventor is seeking to sell this patent, or form a company to float it.

ROAD TRAFFIC VIBRATION.

EXPERT investigation, supplemented by a series of practical experiments, has proved that road-traffic vibration is more disastrous in its effect on wood pavements than all the other destructive agencies which militate against the proper maintenance of wood-block paved roads.

Any engineer who has given the matter his attention at all will agree that a really well-made wood-paved road, put down according to the old formula, becomes a bad road, as regards the surface, in from six to twelve months. Indeed, the evidences of deterioration are often apparent to a keen eye at the earlier of the periods named. The main cause of this undesirable state of things is, undoubtedly, vibration; a large percentage of individual blocks being lifted vertically upwards off their original bed of concrete. As for the tar, which was designed to hold them together, it assists rather than impends vibration, whilst the orthodox general arrangement of the blocks is such as to be particularly favourable to the effects of the same arch-enemy.

Action and re-action are equal. So long as the oscillations from above are answered by like oscillations from below nothing very serious will result. If, however, the blows received by the blocks from the traffic do not correspond, neither will the oscillations; the downward direction of an oscillating movement in one part of the pavement will come in contact with the upward direction of the oscillating movement in the other part of the pavement. As a matter of fact, this is what is constantly taking place, for the horses set up one series of vibrations and the load another series. Moreover, passing and repassing are productive of a separate series of oscillations, under which it is not long before the surface is induced to change its form, which it does, and can never again recover.

Happily, the evils created by vibration are not without remedy. The Wood-Paving Expansion-Channel and Pin Company, 154, St. Saviour's Road East, Leicester, have submitted to our notice drawings, plans, and model of a speciality of theirs which completely checkmates vibration by solidly fastening the blocks of a wood-paved road together. The invention which has achieved this is known as Cooley's Patent Anti-Vibration Double-Dowel Pins. These pins possess the following advantages:—They can be used, if necessary, in any part of the blocks whatever, permitting variety of design. There is no weakening of the blocks by boring. By reason of the firm grip of the pins, each of which form a double-dowel, and, holding as tight as any glued joint, the blocks cannot loosen, no matter what variety of temperature they are subject to. The blocks, when dowelled so firmly together, form a solid, immovable mass; hence adhesive composition for holding-down purposes is unnecessary, and only as a means for providing against dampness is any composition used, and then merely a thin coat. If provision for preventing dampness is unnecessary, then this coat is abolished, and the expense saved; the initial cost being, if any, very little above the ordinary, and lower than any other patent system, while the life of the floor is prolonged in good order for a considerable period over that of ordinary wood block floors. A guarantee of six years is given for every floor laid on this system.

Looking at the model before us, we are struck by the simplicity and the ingenuity of the idea. It is easy to see that the grip the pins have upon the blocks must be of the most tenacious description. The invention was brought out by Mr. Horatio Cooley, C.E., and is the outcome of his practical experience and close observation.

To enable borough surveyors, engineers, &c., to test their system, the Wood-Paving Expansion-Channel and Pin Company have designed a special hand-machine for punching the holes in the blocks ready to receive the ends of the pins, leaving only a smart tap of the block necessary to complete the laying; and though the system may be carried out without any preparation of the blocks, it will be evident that a decided advantage is gained in both accuracy and economy of labour by the use of this machine. The company lend the machine free of charge with any order of not less than 10cwt. of their patent pins, which are made for use with hard or soft woods.

A USEFUL ARTICLE FOR CARETAKERS.

ANYTHING which serves to lessen labour whilst at the same time producing the beneficial effects of labour, must appeal very strongly to janitors, commissionaires, and other caretakers, whose wives or assistants are frequently scrubbing and polishing the floors, walls, or furniture of large buildings.

Such a friend in need is Phenozone soap, which is, however, a devouring foe to grease-spots and stains of all kinds. As this soap is sent out in the form of a powder it is particularly easy of manipulation; but it is quite distinct from the ordinary soap powders, and possesses the great advantage of being a powerful disinfectant. Where it is in constant use, therefore, the drains are always in a clean and sanitary condition.

For cleansing mosaic and tesselated pavements, marble floors, &c., Phenozone is not only more efficient than soft soap and soda, but it is pleasanter to handle and not so extravagant. For cleansing paint, too, it is likely to be much in request; and by its aid floorcloths may be cleansed perfectly without destroying the gloss. We note that the Phenozone Soap Company, of Wandsworth, S.W., are offering to provide samples free of charge to those of the public who may not yet have proved the merits of this cleanser.

Tenders Wanted.

Building, Poole Education Committee.
March 24.—For the erection of a new elementary school building in Wimborne Road. Mr. Charles Lisby, Secretary.

Building, West Suffolk Education Committee.
March 18.—For the erection of a secondary school and pupil teachers' centre at Bury St. Edmunds, for 210 pupils. Mr. A. Ainsworth Hunt, County Architect, Sudbury.

Building, Works Department, Admiralty.
March 17.—For the erection of new Royal Naval Reserve buildings at Portree, Isle of Skye. Director of Works Department, 21, Northumberland Avenue, W.C.

Building, Hexham R.D.C.
March 18.—For the building and erection of the woodwork in connection with the construction of Peckriding Foot Bridge. Mr. W. R. Temperley, Surveyor, Podsbank, Allendale.

Carting and Materials, Cambridge County Council.
March 18.—For carting materials on to the several sections of the Cambridgeshire main roads, from April 1st, 1905, to March 31st, 1906. Mr. Smith H. Rowley, County Road Surveyor, Council Offices.

Cast-Iron Pipes, Evesham Town Council.
March 21.—About 3,700 yards of 6in. cast-iron pipes for a new main for the water department. Mr. Thomas A. Cox, Town Clerk.

Coal, Stores, and Team Labour, Finchley U.D.C.
March 14.—For the year ending 31st March, 1906. See last issue. Mr. E. H. Lister, Clerk to the Council, Church End, N.

Drapery, Cambridge County Asylum Committee.
March 21.—For the supply of drapery, woollen drapery, haberdashery, hosiery, &c., for twelve months from 1st April next. Mr. I. Musgrave Francis, 18, Emmanuel Street.

Electrical Supplies, Bray (Ireland) U.D.C.
March 20.—Supplies at their electric lighting works for twelve months. See advt. in last issue. Mr. P. MacDonnell, Clerk to the Council, Town Hall.

Engineering Works, Birmingham Corporation.
April 8.—For various and extensive works required in connection with the proposed new public baths, Moseley Road, Balsall Heath. Mr. J. Cox, Superintendent Engineer and Secretary, Kent Street.

Engines and Machinery, &c., Rotherham Corporation.
March 18.—For vertical steam fire engine, motor balancer for electric light generating station, watering-car, tramway clothing, &c. See advt. in this issue. Mr. W. J. Board, Town Clerk.

Granite, Slag, &c., Ely R.D.C.
March 21.—For 2,365 tons of granite, 800 tons of slag, and 1,990 tons of gravel. Mr. E. B. Claxton, Clerk to the Council.

Grocery and Milk, Lewisham Guardians.
March 13.—For supplying above to outdoor poor. See advt. in this issue. Mr. H. C. Mott, Clerk to the Guardians.

Harbour, Stonehaven Harbour Trustees.
March 21.—For the work of extension of above. Mr. J. B. Cunningham, Clerk to the Trustees.

Highway Repairs, Newbury R.D.C.
March 15.—For the repair of the district roads for the year ending March 31st, 1905. Mr. S. V. Pinniger, Clerk to the Council.

Isolation Hospital, Preston Corporation.
March 17.—For the erection of above at Holme Slack, Preston. Mr. Henry Hamer, Town Clerk, Town Hall.

Loans, Sunderland Corporation.
Of £50 and upwards, at six months notice, or for a fixed period. See advt. in this issue. Mr. Haswell Brown, Borough Accountant, Town Hall.

Loans, Islington Borough Council.
The above Council is prepared to receive loans up to £39,080, at 3 per cent., for periods of eighteen months, three years, or five years, at option of lender. See advt. in this issue. Mr. Wm. F. Dewey, Town Clerk, Town Hall.

Loans, Stoke-upon-Trent Guardians.
March 21.—£534 and £18,000 required in connection with alterations and additions to be made at their workshouse. Mr. C. Daniel, Union Offices.

MAKES ITS MARK
ALL AROUND THE WORLD
Waterman's
Ideal
Fountain Pen
WATERMAN'S
IDEAL
FOUNTAIN
PEN.
The best for all who write, because it is always right.
It is sheer pen merit in every detail.
No leakage, blotting, or spurting.
No sudden stops.
Writes as soon as pen is put to paper.
Keeps on writing.
Is a friend to the Office worker, the traveller, and all who move about.
Is the ready help of the journalist, the clergyman, or the hard-worked professional man.
Is the right hand of the writing man.
USED IN THE ROYAL FAMILY.
From 10/6, of Stationers, Jewellers, &c.
In Silver and Gold for Presentation.
Send for Daintily Illustrated Brochure on Fountain Pens, post free from
L. & C. HARDMUTH,
12, GOLDEN LANE, LONDON E.C.
(New York: 173, Broadway.)

Materials and Stores, Aston Manor Borough Council.
March 23. For supplying above during the period ending March 31, 1906. Mr. G. H. Jack, Borough Surveyor, Council House.

Old Metal, &c., Commissioners of Irish Lights.
March 23. Above in quantity, and also contractors' plant, boats, &c., for sale. Mr. Owen Armstrong, Secretary, Irish Lights Office, Dublin.

Painting, &c., Oxford Corporation.
March 20.—For the execution of certain painting work at the Corporation cemeteries. Mr. Richard Bacon, Town Clerk.

Pianos, &c., Carlisle Education Committee.
March 20. For tuning and repairing the pianofortes and harmoniums in the various schools of the city during the year ending the 30th March, 1906. Mr. A. H. Collingwood, 15, Fisher Street.

Plumbing, Belfast Corporation.
March 28. For plumbing work, &c., in connection with two asylum villas in course of erection at Purdysburn. Mr. Samuel Black, Town Clerk.

Printing and Stationery, Halifax Corporation.
March 20.—For the supply of stationery, account books, &c., for a period of three years. Mr. Keighley Walton, Town Clerk.

Printing and Stationery, Bethnal Green Borough Council.
March 14.—For either one year or three years from April 1st, 1905. See advt. in last issue. Mr. Robert Voss, Town Clerk, Church Row, E.

Printing and Stationery, Yarmouth Corporation.
March 27.—For the above from 1st May, 1905, to 31st March, 1908. Mr. W. Edgar Stephens, Town Clerk.

Printing, Stationery, &c., Marylebone Borough Council.
March 23.—For supplying above for a period of three years. See advt. in this issue. Mr. John Wilson, Town Clerk, Town Hall, Marylebone Lane, Oxford Street, W.

Printing, Derbyshire County Council.
March 25. For the county printing for a period of three or five years from the 12th April next, according to option. Mr. N. J. Hughes-Hallett, County Offices, St. Mary's Gate, Derby.

Printing, Stationery, &c., East Riding County Council.
March 27.—For the period of three years from May 1, 1905. Mr. John Bickersteth, County Hall, Beverley.

Provisions, Bovril, Oil, &c., Windsor Guardians.
March 27.—For supplying above, for indoor and outdoor relief, for a period of six months. Mr. Philip Lovegrove, Clerk to the Guardians.

Provisions and Stores, Hammersmith Guardians.
March 21.—For the above for six and twelve months respectively. See advt. in last issue. Mr. J. Lamb, 206, Goldhawk Road, Shepherds Bush, W.

Provisions and Drapery, Croydon Borough Council.
March 20.—For the supply of above to the Borough Hospital at Waddon. Mr. F. C. Lloyd, Town Clerk.

Provisions and Stores, Scarborough Corporation.
March 20.—The above for the term of one year from the 31st of March, 1905. Mr. D. Arthur Nicholl, Town Clerk.

Provisions and Stores, Willesden U.D.C.
March 21.—For the above to the Isolation Hospital in Dog Lane. Mr. Stanley W. Ball, Clerk to the Council, Dyne Road, Kilburn, N.W.

Provisions and Stores, Aston Guardians.
March 18.—The above for three, six, and twelve months respectively. Mr. John North, Clerk to the Guardians, Vauxhall Road, Birmingham.

Provisions and Stores, Strand Guardians.
March 16.—For supply of above to their workhouse and school at Edmonton, and to their establishments at Bear Yard, Lincoln's Inn Fields, for six or twelve months as may be agreed. Mr. A. H. Maddocks, 15, Henrietta Street, Covent Garden, W.C.

Provisions and Stores, &c., Westminster Guardians.
March 17. For supply of above to their workhouse for a period of six months from March 26, and for window-cleaning, jobbing work, &c., for twelve months from same date. Mr. William Lee, Clerk to the Guardians, Poland Street, Oxford Street, W.

Provisions and Stores, &c., Edmonton Guardians.
March 22.—For supply of above for periods of six and twelve months, and for funerals for the out-door poor of the several parishes of the union, for twelve months. Mr. F. Shelton, White Hart Lane, Tottenham.

Provisions and Stores, &c., Croydon Borough Council.
March 13.—For the supply of above to the Croydon Mental Hospital, Warlingham, for the year ending 31st March, 1906. See advt. in last issue. Mr. F. C. Lloyd, Clerk to the Visiting Committee, Town Hall.

Provisions and Stores, &c., Croydon Guardians.
March 13.—For groceries, ale and porter, various stores, services of barber and chimney sweeper. See advt. in last issue. Mr. Harry List, Union Offices, Mayday Road, Thornton Heath.

Provisions and Stores, Blandford Guardians.
March 29.—For provisions and all other articles required in the workhouse from the 1st April to the 29th September next; and for printing and stationery from the 1st April to the 30th March, 1906, inclusive. Mr. S. Traill, Clerk to the Union.

Provisions and Stores, Southwark Guardians.
March 16.—For the supply of above, for six and twelve months respectively. See advt. in last issue. Mr. Howard C. Jones, Clerk to the Guardians, John Street West, Blackfriars Road, S.E.

Provisions, &c., Strood R.D.C.
March 22.—For the supply of certain articles of provisions and necessaries required for the Isolation Hospital at Whitehill Road, Cobham, near Gravesend, for the year ending 31st March, 1906. Particulars, Union Workhouse, Strood.

Provisions, Builders' Repairs, &c., Swaffham Guardians.
March 29. For the supply of above and for repairs at workhouse during the ensuing half year. Mr. Sydney Matthews, Clerk to the Guardians.

Provisions and Stores, City of London Guardians.
March 13.—For supplying above at various places, as the Guardians may direct, for periods of six and twelve months, from March 27, 1905. See advt. in this issue. Mr. Edward R. Woodward, 61, Bartholomew Close, E.C.

Provisions and Stores, Huddersfield Guardians.
March 18.—For supplying above to children's homes for the half-year ending October 1st, 1905. Mr. E. A. Rigby, Clerk to the Guardians, Ramsden Street.

Provisions, Soap, Bovril, &c., Isle of Thanet Guardians.
March 16.—The above for their cottage homes and workhouse. Mr. Charles Taylor, Clerk to the Guardians, Board Room, Minster, near Ramsgate.

Provisions, Canterbury Guardians.
March 20.—For supplying above for three months from 28th March. Mr. John Plummer, 80, Castle Street.

Provisions and Horse Hire, Malling Rural District Council.
March 22.—For supplying above in connection with the Isolation Hospital, for the half-year ending 30th September, 1905. Mr. Fredk. J. Allison, Clerk to the Council.

Provisions and Stores, Central London School District.
March 18.—For supplies for the schools at Hanwell. Mr. Geo. P. Morrell, the Schools, Hanwell, W.

Refreshment Room on Hire, Eastbourne Town Council.
March 21.—For the hire of the Hampden Park Refreshment Building for one year. Mr. H. V. Fovargue, Town Clerk.

Removal of Refuse, &c., Hackney Borough Council.
March 13.—For the removal of large destructor clinker, fine ash, fine dust, &c., from their yard in Millfields Road, Clapton. See advt. in last issue. Mr. W. A. Williams Town Clerk, Mare Street, N.E.

Refuse, &c., Trustees of Southwark Borough Market.
March 29. For the removal of above. Mr. A. Musgrave, Market Offices, Cathedral Street, S.E.

Removal of Refuse, &c., Croydon R.D.C.
March 21. From premises in the parish of Mitcham, and for supplying horses and carmen for watering certain roads in the same parish. Mr. E. J. Goweu, District Council Offices, Town Hall.

Roads, Alnwick R.D.C.
March 18.—For supplying various materials from 1st April, 1905, to 30th September, 1905. Mr. H. W. Walton, Fenkle Street.

Road Material and Labour, Warwick R.D.C.
March 16.—For the cartage of road material and general team labour for the year ending March 31st, 1906. Mr. C. H. Passman, 48, Bedford Street, Leamington Spa.

Road Materials, Team Labour, &c., Gillingham Town Council.
March 25.—The above and various stores for the term of one year, commencing April 1, 1905. Mr. F. C. Boucher, Town Clerk.

Roads, &c., Leeds Corporation.
March 22. For 50,000 cubic yards of excavation, and other work in connection with above. Town Clerk.

Road Materials, Burnley Borough Council.
March 18.—For the supply of setts, flags, &c. Mr. G. H. Pickles, Borough Engineer, and Surveyor, Town Hall.

Road Materials, Malton U.D.C.
March 25.—For the supply of unbroken and broken whinstone, granite, or other material suitable for the repairs of the roads within their district, to March 31st, 1906. Mr. G. S. Cattle, Clerk to the Council, Town Hall.

Scavengers' Brooms, &c., Poplar Borough Council.
March 13. For the above, and for removal of clinker. See advts. in last issue. Mr. Leonard Potts, Town Clerk, High Street.

School, Cardiff Education Committee.
March 15. For the erection of new schools (for 900 children) on Canton Market Estate. Mr. John J. Jackson, Director of Education.

Sewage Disposal, Featherstone U.D.C.
March 31.—For the construction of sewage disposal works for the southern watershed of their district. Mr. Charles Lowden, Clerk to the Council, Ropergate, Pontefract.

Sewage Works Pumps, Rothwell U.D.C.
March 20.—For new pumping and screening machinery for sewage disposal works at Stourton. Mr. W. Dodgson, Clerk to the Council.

Sewerage, &c., Rothwell U.D.C.
March 20.—For the construction of new sewerage and sewage disposal works at Stourton. Mr. W. Dodgson, Clerk to the Council.

Stores, Road Material, &c., Paddington Borough Council.
March 18.—For various works and materials for one year from April 1st, 1905. See advt. in this issue. Mr. A. W. J. Russell, Town Clerk.

Stores, Bury Borough Council.
March 18.—Various stores for the Gas Committee. Mr. John Haslam, Town Clerk, Municipal Offices.

Street Watering, Cartage, &c., Broadstairs U.D.C.
March 25.—For horsing water vans, dust carts, and general cartage of materials. Mr. Lionel A. Skinner, Clerk to the Council.

Team Labour, Southwell R.D.C.
March 18.—For carting road material in the parishes, comprising the north and south districts, for the ensuing year. Mr. G. E. Kirkland, Clerk to the Council.

Timber, Cement, &c., Board of Public Works.
March 22.—For the supply for one year ending 31st March, 1906, of above, and oils, paints, and other materials, for delivery at the Shannon Navigation Stores, Limerick. Mr. H. Williams, Secretary, Office of Public Works, Dublin.

Tramways, Aston Manor Corporation.
March 24.—For the reconstruction of existing tramways in their district and the construction of other works in connection therewith. See advt. in this issue. Mr. John Ansell Town Clerk.

30,000 Letters

In this Cabinet, and any one of them found at a **moment's notice.**

The Referee Vertical File.

English Manufacture.

Send for Illustrated List to

Partridge & Cooper, Ltd.,

1 & 2, Chancery Lane,

London, E.C.

The CITIZEN'S WHAT'S WHAT.

SOME PERSONAL AND PRESS OPINIONS

OF THE

MUNICIPAL YEAR BOOK

1905.

(3s. 6d. Post Free, 3s. 11d.)

John Burns, L.C.C., M.P., in the *Daily Chronicle*.—"From the first to the last page we have a civic compendium which evokes respect, compels appreciation, and should receive the consideration of all students, inquirers, Labour leaders, and representatives who wish to have faith through knowledge, and justification for their service, in works achieved."

A Local Government Official.—"The volume contains all that could be desired as a reference to municipal affairs."

A Town Clerk.—"Your exceedingly valuable 'Year Book.'"

Pall Mall Gazette.—"It would be hard to mention a subject of public activity and inquiry or a borough of note not dealt with in this volume of six hundred pages of veracity for three-and-six."

Globe.—"The MUNICIPAL YEAR BOOK has grown into a volume as portly as it is unquestionably valuable."

Daily Mail.—"It is a wonderful volume of facts and figures of the greatest possible interest, and quite indispensable to all who would be familiar with municipal development all over the kingdom."

LONDON: EDWARD LLOYD, Limited, 12, SALISBURY SQ., E.C.

COOLEY'S PATENT

DOUBLE DOWEL-PINS

WILL REVOLUTIONISE

WOOD PAVING.

These DOWELS form a solid mass, effectively counteracting vibration, and thereby considerably increasing the life of the road.

For WOOD-BLOCK FLOORING this system of DOUBLE DOWELLING is recommended in all cases where the floors are subject to heavy traffic, such as in Factories, Warehouses, Public Halls, Schools, Sheds and Yards, &c.

FOR PARTICULARS APPLY—THE

WOOD-PAVING EXPANSION-CHANNEL & PIN CO.,

H. COOLEY, C.E., *Managing Director.*

154, St. Saviour's Road East, LEICESTER.

ENGLISH INSTRUMENTS.

LATEST. CHEAPEST. BEST.

Some Important Specialities just placed on the market—

CALCULATING SLIDE RULE, by Prof. Perry. SCALE GRADED CURVES, by J. Harrison, M.I.M.E., A.M.I.C.E., Wh.Sc. THE VALOMETER, TRANSPARENT-EDGE T-SQUARES, COLOURS, PENCILS, etc., etc.

Just published, post free, New Edition of CATALOGUE, with Coloured Illustrations.

A. G. Thornton,

PRACTICAL MANUFACTURER,

Contractor to H.M. Government.

34, KING ST., WEST,

MANCHESTER, ENG.

DRAWING INSTRUMENTS.

Special make, arrangement, and finish. The most practical and useful to be had, and quite different to what are usually sold.

TEMPERANCE PERMANENT

BUILDING SOCIETY.

4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS

For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager

LIGHTNING CONDUCTORS

Supplied, Erected, & Tested. Chimney Shafts Restored, &c.

J. LEWIS,

5 and 6, Great Winchester Street, London, E.C.

TELEPHONE NO. 3053 CENTRAL.

BIRKBECK BANK

ESTABLISHED 1851.

2½ per cent. INTEREST

allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST

allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.

STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C.

PEARL ASSURANCE CO.,

LIMITED.

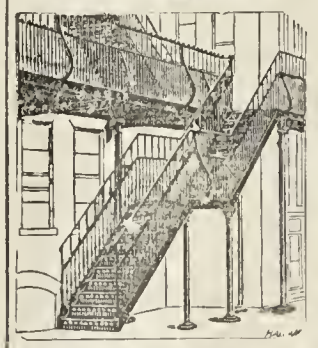
Chief Offices—London Bridge, City, E.C.

Annual Income	£1,382,000
Funds Increased during year 1904 by	£352,000
Claims Paid	£4,263,000

Additional representatives wanted.

P. J. FOLEY, Managing Director.

ST. PANCRAS IRONWORK



CO., Limited,

SPECIALISTS IN

IRON

FIRE ESCAPE

STAIRCASES

CATALOGUES ON APPLICATION.

171, ST. PANCRAS ROAD LONDON N.W.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

Patents of the Week.

BY A CHARTERED PATENT AGENT.

Out of 574 patents applied for during the week ended March 1th, the following are selected as being likely to be of interest to our readers:

4038. Doyle and O'Neill, 52, Chancery Lane, W.C. Improvements in smoke consumers.

4059. Chambers, 33, Cannon Street, E.C. An improved ventilator.

4102. Connett, 322, High Holborn, W.C. Improvements relating to electric tramways with conduit current supply.

4093. Brenton and Struthers, 18, Buckingham Street, Strand, W.C. Improvements in cribbing or shoring for excavations.

4152. Shimmin, 7, Newton Road, Urmston, near Manchester. Improvements in ash-bins.

4164. Tanner and Claremont, 1, Queen Victoria Street, London. Improvements in automatic signalling apparatus for tramways, railways, and the like.

4172. Whitehead, 8, Quality Court, Chancery Lane, London, for new or improved fire indicator or alarm.

4104. McKenna and Lowe, 6, Lord Street, Liverpool. Improvements in or connected with flushing cisterns for water closets.

4122. Hughes, 96, Buchanan Street, Glasgow. Improvements in and relating to electrical switches for arc lamps and other circuits.

4129. Williams, 8, Crossley Buildings, South Castle Street, Liverpool. Improvements in or relating to street or other lamps.

4149. Killmann, 68, Alterwall, Hamburg, Germany. Improved movable metal hoop for fastening the trunks of young trees.

4192. Ellis, 70, Chancery Lane, W.C. Improvements in apparatus for the bacterial purificationof sewageand other waste waters.

4201. Gumz and Wingender, 6, Lord Street, Liverpool. Improvements in water meters.

4212. Hoddan, 18, Buckingham Street, Strand, W.C. Improvements in flushing cisterns.

4218. Ducker, Princes Chambers, Wolverhampton. Improvements in and relating to roofs for portable houses.

4249. Dickinson, 5, Salisbury Road, Wimbledon. Improvements in or connected with dynamos or electrical machinery, including their external circuits, with special reference to the regenerative system of electrical tramcar control.

4282. Wise, 77, Colmore Row, Birmingham. Improved machine for scraping and sweeping mud and the like from roads.

4283. Ford and Parkinson, 8, Quality Court, Chancery Lane, W.C. Improvements in or relating to dry seats for tramcars, garden, and other seats.

4286. Ball, 7, Southampton Buildings, Chancery Lane, W.C. Improvements in or relating to service connections to gas and water mains.

4294. Garrigou, 322, High Holborn, W.C. Improved method of producing solid fertiliser from sewage, sludge, and other organic refuse.

4295. Hall, 6, Lord Street, Liverpool. Improvements in or in connection with inverts or blocks for flushing sewers, pipes, and the like.

4335. Sanders, Prudential Buildings, Corporation Street, Birmingham. Improved means for indicating and recording variations in level or depth of water or other liquids in reservoirs, sewers, and mines.

4354. Lübeck, 44, Grange Park, Ealing, W. Electric time-switch.

4362. Lake, 7, Southampton Buildings, Chancery Lane, W.C. Improvements relating to electric circuit systems.

4431. Burden, 58, Uxbridge Road, Hanwell. Automatic signals for loop lines and bells, the whole worked by electric tramcar automatically.

4436. Candy, 7, Staple Inn, W.C. Improvements in the sterilisation of water, and in apparatus for that purpose.

4451. Fairbairn, 15, St. James' Street, Sheffield. Improvements in the treatment of sewage.

4463. Hooper, 46, Lincoln's Inn Fields, W.C. Improvements in motor vehicles for railways or tramways.

4554. Verlander, 37, Chancery Lane, W.C. An improved fire escape.

Appointments Vacant.

Assistant Prosecuting Solicitor, Liverpool Corporation.
March 21.—To fill above office and assist generally in work of Town Clerk's Department; salary £500 per annum. See advt. in this issue. Mr. Edward R. Pickmere, Town Clerk.

Botanist, London University.
Commencing salary £300 per annum. Secretary, South-Eastern Agricultural College, Wye, Kent.

Clerks, Two Office, Borough of Kensington.
March 15. — Town Clerk's Department; salary £70. See advt. in last issue. Mr. W. Chambers Leete, Town Clerk, Town Hall.

Clerk of Works, Todmorden Corporation.
March 14.—In connection with the carrying out of the construction of the proposed sewage disposal works at Eastwood; salary £3 per week. Mr. D. Sutcliffe, Town Clerk.

Divisional Surveyor, Salop County Council.
March 20. For the west central main roads division of the county; salary £150 per annum, rising to £200; applicants must be not less than 24 nor more than 40 years of age, and the person appointed will be required to keep a horse and trap. Mr. E. C. Peele, Shire Hall, Salop.

Engineer to Public Health Department, London Corporation.
March 18. Candidates must not be over 50 years of age, and must be members of the Institute of Civil Engineers. Salary £1,000 per annum, rising to £1,500. Town Clerk, Guildhall, E.C.

Fire Brigade Engineer, Barking Town U.D.C.
March 14.—Applicants must be experienced firemen, and practical mechanics, &c.; wages 30s. per week, with house, coal, and light. See advt. in this issue. Mr. H. Hargreaves, Clerk to the Council.

Gas and Water Works Manager, Tredegar U.D.C.
March 20.—Preference will be given to a person who has a knowledge of electricity. Mr. John A. Smepard, Clerk to the Council.

Harbour Superintendent, Llanelly Harbour Trust.
March 16. Previous similar experience; salary £300 per annum. Mr. Henry W. Spowart, Town Hall, Llanelly.

Head Nurse, Warwick Guardians.
March 16. For their new infirmary at Warwick; candidates must be trained and certificated nurses, with a midwifery qualification; salary £40 per annum, with board, lodging, rations, &c. Mr. C. H. Passman, 48, Bedford Street, Leamington Spa.

Headmaster's Assistant, Bermondsey Guardians.
March 15. —At their schools, Wickham Road, Shirley, Surrey; salary £50 per annum, together with rations, lodging, and washing; candidates must not be less than 25 nor more than 40 years of age, and must be well versed in Poor Law work. Mr. E. Pitts Fenton, Guardians' Offices, 283, Tooley Street, S.E.

Inspectors, London County Council.
April 1.— Four divisional inspectors, salary £600 a year, rising to £800; one art inspector, salary £400 a year, rising to £500; one inspector of wood and metal work, salary £100, rising to £500; one inspector of women's technical classes, salary £300 a year, rising to £400. Mr. G. L. Gomme, Clerk of the Council, Spring Gardens, S.W.

Inspector of Midwives, Norfolk County Council.
March 23.—Must be duly qualified nurse and registered midwife; salary £100 a year and travelling expenses. Mr. G. Christopher Davies, 11, Prince of Wales' Road, Norwich.

Master and Matron, Wheatenhurst Guardians.
March 22. For the workhouse at Eastington, Stonehouse, Gloucestershire; applicants to be between 28 and 45; salaries, master £42, matron £32 per annum, with rations, washing, and furnished apartments. Mr. R. E. Stuart, Clerk to the Guardians, Bedford Street, Stroud.

Master and Matron, Paddington Workhouse.
March 18.—Salaries £120 and £60 respectively. See advt. in last issue. Mr. Henry F. Aveling, Clerk to the Guardians, 313-319, Harrow Road, W.

Master and Matron, Richmond Guardians.
March 18.- For appointment at their workhouse at Richmond, Surrey; candidates must be man and wife, and both under the age of 40 years; salary of Master, £140 per annum, and of Matron, £60, with rations, washing, and furnished apartments in workhouse. Mr. Percy Unney, Clerk to the Guardians, Union Chambers.

Principal Assistant, Education Department, London County Council.
March 18.- In the executive officer's branch; will be required to assist in the work relating to higher education, especially in connection with secondary education, scholarships, and the training of teachers; must have had university or equivalent training; salary £400 per annum, rising to £600. Mr. G. L. Gomme, Clerk of the Council, County Hall, Spring Gardens, S.W.

Rate Collector, Borough of Kensington.
March 15. Candidates must be between 30 and 40 years of age. Salary £220. See advt. in last issue. Mr. W. Chambers Leete, Town Clerk.

Relieving Officers, Newcastle-upon-Tyne Guardians.
March 16.— For Nos. 1 and 3 districts of the union; salary £100 per annum, and the officers will also be appointed collectors for the guardians, with remuneration at the rate of 10 per cent. on the amounts received and collected. Mr. James Atkinson, Union Offices, Pilgrim Street.

Relieving Officer, Whitney Guardians.
March 14. For the Eynsham District of the Union, comprising seven parishes, with a population of 4,361, and an area of 16,691. Salary £65 per annum. Mr. N. J. G. Ravenor, 22, High Street.

Second Assistant Matron, Bermondsey Guardians.
March 20. Must be well educated, not less than 30 nor more than 40, and have had at least three years' training in nursing in a hospital or infirmary. Salary £35 per annum, rising to £40, with rations, lodgings, washing, &c. Mr. E. Pitts Fenton, 283, Tooley Street, S.E.

Secondary and High Bailiff of Southwark, London Corporation.
March 18. Candidates must have been at least seven years at the Bar or on the Roll of Solicitors, and must not be under 35 years of age. Salary £750 per annum, rising to £1,000. Town Clerk, Guildhall.

Sewage Farms Manager, Corporation of Cheltenham.
March 20. As above, to superintend two sewage farms, containing together about 350 acres, grazing and arable; salary (with good house rent free) £200 per annum, rising to £300. Mr. R. Owen Seacombe, Town Clerk, Municipal Offices.

Staff Nurses, Poplar and Stepney Sick Asylum District.
March 13.—Two staff nurses at their temporary branch asylum for women and children at Blackwell Pier, E. See advt. in last issue. Mr. Walter Foskett, Clerk to the Managers, Devon's Road, Bromley-by-Bow, E.

Superintendent of Farm and Labour Colony Suffolk.
See advt. in last issue. The Secretary, London Unemployed Fund, Guildhall, E.C.

Surveyor and Inspector of Nuisances, Hoddesdon U.D.C.
Salary £130, rising to £160 per annum. Mr. Philip R. Longmore, Clerk of the Council.

Tramway Manager, Southampton Corporation.
March 15. General manager of their electric tramway undertaking; salary to commence at £500, rising to £600. See advt. in last issue. Mr. R. R. Linthorne, Town Clerk, Municipal Offices.

Woman Sanitary Inspector, Borough of Lewisham.
March 15. Candidate must hold certificate of competency in sanitary knowledge and must not be more than 35 years of age; salary £100 per annum, rising to £120. See advt. in last issue. Mr. Edward Wright, Town Clerk, Town Hall, Catford, S.E.

Waterworks Engineer, Desborough U.D.C.
March 15—Must be used to gas-engines, pumping plant, main-laying, and connections. Mr. D. J. Diver, Surveyor's Office.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CARTOONS.
Specialists in Photo.-Litho,
Photo-Copies, and Sun Prints,
VACHER & SONS. Westminster.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GARDEN FURNITURE.
S. CLARK & CO.,
Compton Works, Canonbury Road, N.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION

IS FAR IN EXCESS

OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL, 12, SALISBURY SQUARE, LONDON.

PHENOZONE
SOAP

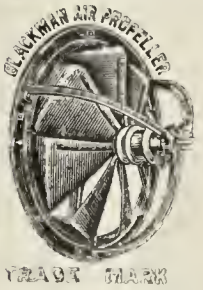
Has been proved to be the most efficient Cleanser for Mosaic and Tesselated Pavements, Marble Floors, Swimming and Slipper Baths, &c., after several years' use in numerous Public Baths, Electricity Stations and other Establishments.

"PHENOZONE SOAP," being in powder, is easy to use; it is also a strong, disinfectant.

SAMPLES FREE.

PHENOZONE SOAP CO.,
Wandsworth, London, S.W.

BLACKMAN
ELECTRIC FANS.



GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment,
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

Bonds are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds Approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary, SHIRLEY FUSSELL.

WILLIAMSON
ASHTON-UNDER-LYNE,

Telephone 320.

FOR
TICKETS
AND
PUNCHES
FOR
TRAMWAYS, &c.

TICKET NIPPERS.

TICKETS, DATING MACHINES, AND ISSUING CASES
FOR RAILWAYS, BATHS, &c.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM
Edited by ROBERT BLATCHFORD.

Yon shonld read **"THE CLARION"** for reliable tuformation as to

MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if yon are interested in Social and Economic Progress, and wish to keep in tonch with the new thought and new politics of the 20th Century,

Yon Mnst Read **"THE CLARION."**

Send for specimen copy to **"THE CLARION"** Office
72, FLEET STREET, LONDON, E.C.

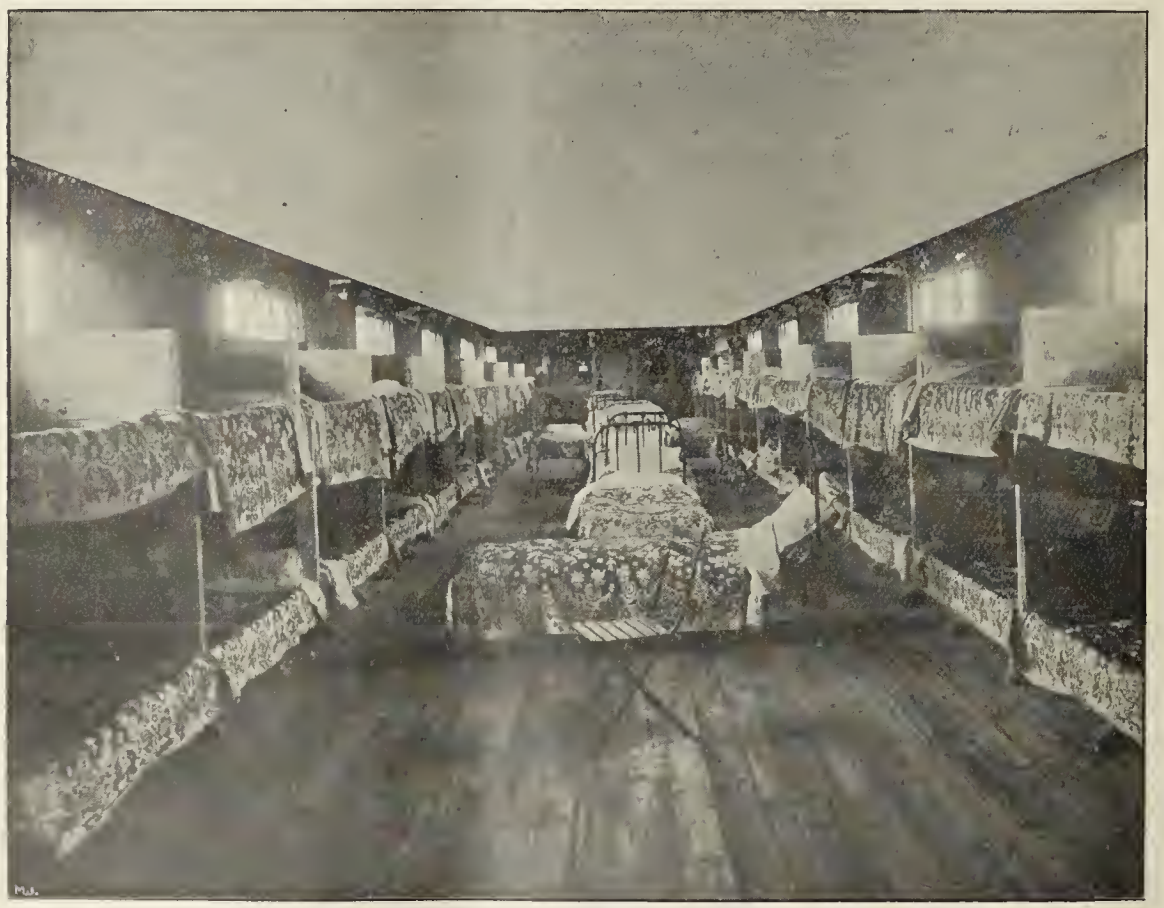
CALMON ASBESTOS SLATE.

The Best Fire-Resisting Building Material for all Purposes.

Exterior view of Mess Room, Workmen's Buildings, Garden City, near Hitchin.

Mess Room Roofed with Calmon Asbestos Slate.

Calmon Asbestos Slate was used for Buildings erected at Garden City for Housing the Unemployed sent down by the Mansion House Committee.



Interior of Sleeping Ward, lined with CALMON ASBESTOS SLATE.

EASILY FIXED.
SANITARY.
INEXPENSIVE.

CALMON ASBESTOS & RUBBER WORKS, Ltd.,

6, SHEPPY PLACE, MINORIES, LONDON, E.C.

Printed and Published by Edward Lloyd, Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE MUNICIPAL JOURNAL.

No. 633.—Vol. XIV. FRIDAY, MARCH 17, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. TWOPENCE.

CONTENTS.

	PAGE
BATTERSEA HOUSING SCHEME...	225
THE MUNICIPAL SURVEYOR ...	227
CORRESPONDENCE :—	
Bridlington Electricity	228
"Destructors and Electricity" and "Rating of Site Values"	231
"Gas Company Statistics"	232
"State Children Emigration" ...	242
OUR PRIZE ESSAYS—II.	229
NEW HEADS OF THE L.C.C. ...	232
DISEASE v. HEALTH	233
MUNICIPAL MUTUAL INSURANCE —Part II.	234
NOTES AND ANSWERS	235
NOTES AND COMMENTS:—	
The Murder Out; More Reforms ...	239
Trading at Harrogate; The Rates of London; Cardiff and Small Loans; The Municipality and the Country: Some Striking Facts ...	240
THE PAUPER CHILD—Part I. ...	241
POOR LAW OUTLOOK	243
ELECTRICITY SUPPLY	245
NEW L.C.C. COMMITTEES... ...	246
TRAMWAY ANALYSES	247
TRAMWAY TOPICS	249
THE SURVEYOR AND CONTRACTOR	253 &c.

Official Advertisements.

COUNTY BOROUGH OF SUNDERLAND.

THE Corporation are prepared to receive LOANS of £50 and upwards on security of the Rates of the Borough, at six months' notice or for a fixed period.

For further particulars, apply to Haswell Brown, Borough Accountant, Town Hall.

Sunderland.

13th December, 1904.

PROMOTION impossible without good Penmanship. Rapid tuition. Send stamp for Prospectus No. 18, N. Broadbent (Prizeman and Medallist), Alston's College, Burnley.

Official Advertisements.

FURTHER ISSUE OF £2,500,000 3 PER CENT. LONDON COUNTY CONSOLIDATED STOCK.

(Authorised by Act 32 and 33 Vic., cap. 102, and the Acts extending or amending the same, and Act 4 Edw. VII., cap. xcvii.)

Miuimum price of Issue, £95 10s. per cent.

A full quarter's dividend will be payable on the 1st June, 1905.

THE LONDON COUNTY COUNCIL give notice that they will be prepared to receive sealed Tenders for the whole or any part of the above on Monday, 20th March, 1905, up to Two o'clock p.m., at tht Bank of England; but no allotment will be made of less amonut than £10 Stock.

The Stock bears interest at the rate of £3 per cent. per annum. Divideuds paid quarterly at the Bank of England, on the 1st March, the 1st June, the 1st September, and the 1st December. Dividend warrants will be transmitted by post, unless otherwise desired.

This issue will form part of and rank equally with London County Consolidated Stock already created and issued. The Council are not bound to redeem the Stock at any fixed date, and it will not be redeemable by them until after the 19th March, 1920, but after that date it may be redeemed at any time by and at the option of the Council at par, in such sums and proportions, and in such order and mauner, whether by drawings or otherwise as the Council may from time to time determine, provided that one year's notice of any such intended redemption shall have been previously given in the "London Gazette." The Books of the Stock are kept at the Bank of England. Transfers and Stock Certificates are free of stamp duty, and Stock or Scrip of this Stock can be converted into Certificates to bearer without payment of any fee.

Arrangements have been made with the Bank of England for the automatic investment of dividends, if so desired, as in the case of Government Stock.

A fund for paying dividends on and redeeming Stock has been constituted, and this fund is under the supervision of the Treasury, who satisfy themselves that the Council annually raise by rate the money necessary for those purposes.

A trustee, executor, or administrator may, unless expressly forbidden by the instrument (if any) creating the trust, invest any funds in Consolidated Stock created by the London County Council.

The dates at which the money will be required are as follows:—

On making the Tender a deposit of £5 per ceut.

On the 5th April, 1905, so much as will, with the deposit, leave £70 per cent. to be paid afterwards.

On the 26th April, 1905, £20 per cent.

On the 17th May, 1905, £20 per cent.

On the 14th June, 1905, £15 per cent.

On the 12th July, 1905, £15 per cent.

On and after the 5th April, 1905, payments in full will be received, and a discount at the rate of Two per cent. per annum will be allowed.

Copies of the prospectus and forms of tender can be obtained at this office, and at the Chief Cashier's Office, Bank of England, or at any of the branches of that Bank; at the London and Westminster Bank (the Treasurer of the Council), Lothbury, or at any of its branches; and of Messrs. Mulleus, Marshall and Co., 4, Lombard-street, London, E.C.

Tenders should be upon the printed form.

By order.

H. E. HAWARD,
Comptroller of the Council.

London County Council,
Spring Gardens,
14th March, 1905.

Official Advertisements.

THE ROYAL BOROUGH OF KENSINGTON

BOROUGH TREASURER'S DEPARTMENT.

APPOINTMENT OF RATING CLERK.

THE Council of the above Borough require the services of an additional Assistant in the Borough Treasurer's Department, at the commencing salary of the 3rd class, viz., £110 per annum, rising to £150 per annum by couditional annual increments of £10. Candidates must be between the ages of 25 and 30, and must possess a thorough practical knowledge of the work counected with the posting aud balancing of rate-books, the checking of Rate Collectors' returns and accounts, and of the general work of a Muuicipal Finance Department. Preference will be given to those who have passed the examination of the Institute of Municipal Treasurers and Accountants (Incorporated).

Applications for the appointment must be made in the candidates' own handwriting, on printed forms to be obtained of the Borough Treasurer, at the undermcutioned address, and must be delivered at the Treasurer's Office, accompanied by copies of not more than three testimonials of recent date, not later than 29th March, 1905.

Personal canvassing of any member of the Council will be a disqualification.

WM. CHAMBERS LEETE,
Town Clerk.

Town Hall, Kensington, W.,
15th March, 1905.

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's Cocoa

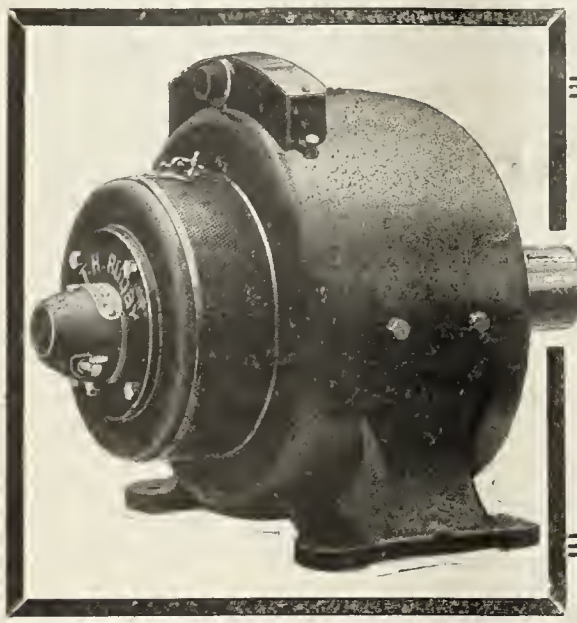
Absolutely PURE — therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."



THE

BRITISH THOMSON-HOUSTON

COMPANY, Limited,

Electrical Engineers & Manufacturers.

HEAD OFFICE & WORKS—

RUGBY.

There are many kinds of Electric Motors, some of which are excellent in their way; but where a motor combining the Finest Workmanship and the Best Materials at a Reasonable Price is required, our type "D.A." Motor is the only one to meet the demand.

If you want the Best

REFUSE DESTRUCTOR,
MECHANICAL STOKER,
or FURNACE,

Write to

MELDRUM

TIMPERLEY, near MANCHESTER,
AND
66, VICTORIA STREET, WESTMINSTER.

12,000 AT WORK.

WILLIAMSON

ASHTON-UNDER-LYNE,

Telephone 320.

FOR

TICKETS
AND
PUNCHES
FOR
TRAMWAYS, &c

TICKET NIPPERS.

TICKETS, DATING MACHINES, AND ISSUING CASES

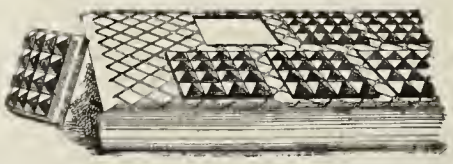
FOR RAILWAYS, BATHS, &c.

20 Gold Medals & Other Awards. Prize Medal Sanitary Institute.

W. GOODING,

Manufacturer of the Patent

Interchangeable Rubber Tread.



For Institutions and Public Buildings.
These Treads Consist of a Metallic Keeper with Pieces of Rubber which Form the Wearing Surface and can be Renewed in a few minutes.

North Road Works, North Road, Holloway, London, N.
TELEPHONE No. 1633 NORTH.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

THE BEST JUDGES OF CIGARS

Now obtain their supplies at

BENSON'S, 61, St. Paul's Churchyard, London.

Really good Foreign Cigars at 16s., 20s,, 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

COOLEY'S

PATENT

DOUBLE DOWEL-PINS

WILL REVOLUTIONISE

WOOD PAVING.

These DOWELS form a solid mass, effectively counteracting vibration, and thereby considerably increasing the life of the road.

For WOOD-BLOCK FLOORING this system of DOUBLE DOWELLING is recommended in all cases where the floors are subject to heavy traffic, such as in Factories, Warehouses, Public Halls, Schools, Sheds and Yards, &c.

FOR PARTICULARS APPLY—THE

WOOD-PAVING EXPANSION-CHANNEL & PIN CO.,

H. COOLEY, C.E., *Managing Director.*

154, St. Saviour's Road East, LEICESTER.

ENGLISH INSTRUMENTS.

LATEST. CHEAPEST. BEST.

Some Important Specialities just placed on the market—

CALCULATING SLIDE RULE, by Prof. Perry.
SCALE GRADED CURVES, by J. Harrison, M.I.M.E., A.M.I.C.E., Wh.Sc.
THE VALOMETER,
TRANSPARENT-EDGE T-SQUARES,
COLOURS, PENCILS, etc., etc.
Just published, post free. New Edition of CATALOGUE, with Coloured Illustrations.

A. G. Thornton,

PRACTICAL MANUFACTURER,
Contractor to H.M. Government.
34, KING ST., WEST,
MANCHESTER, ENG.

DRAWING INSTRUMENTS.

Special make, arrangement, and finish. The most practical and useful to be had, and quite different to what are usually sold.

The

Municipal Journal.

No. 633. Vol. XIV. MARCH 17, 1905

HOUSING THE WORKMEN.

Battersea Borough Council Opens its Second Housing Scheme. Two and Three-Roomed Tenements at 6s. and 8s. 6d. per Week Respectively. Are the Rents too High? Description of Splendid Work Done by Direct Labour. Comparison of the Town Hall Estate with the Latchmere Estate.

ON Saturday the Battersea Borough Council opened its second housing estate. It is little more than eighteen months ago that it completed an extensive scheme of house-erection on the Latchmere Estate, and so well have the townspeople liked these that for a long time past they have besought the Council "for more."

But the Council, however willing it is to protect, so far as is compatible with the interests of the general community, the working classes from the small landlord, is much handicapped by its inability to get land on reasonable terms. There was, however, one piece of vacant land behind the splendid Town Hall, Lavender Hill, fronting Town Hall Road and Theatre Street, to which the eyes of the councillors turned, and on this provision has been made for housing thirty-six families, or about 150 persons. Compared with the Latchmere scheme, this is very small, for on that estate there were as many *houses* erected as there are individuals provided for on the Town Hall estate.

In the former scheme there were four classes of houses erected, as follows:—Eight five-roomed houses, rent 11s. 6d. per week; six odd houses of four and five rooms respectively, rent 10s. and 10s. 6d. per week; sixty-nine houses, containing two three-roomed tenements each, rent 7s. 6d. per week per tenement; seventy-three houses, containing two four-roomed tenements each, rent 10s. and 10s. 6d. per week per tenement. The total estimated cost of carrying out the scheme, as approved by the Council, was £105,603 7s. 9d.

On the Town Hall estate, on the other hand, there are only two types of dwellings, viz., two-roomed and three-roomed tenements, of which fourteen three-roomed and two two-roomed tenements front Theatre Street, whilst fourteen three-roomed and six two-roomed tenements abut on Town Hall Road.

Before passing to a description of the houses, it may at once be stated that we have not seen better houses of the kind erected by any local authority in England. The whole of the work in the buildings, including the making and fixing of the granolithic ceilings, heads, canopies, brackets, lintels, concrete partitions, slabs, etc., even to the wrought-iron railings without the houses, have been carried out by the Council's Works Department. If there is one word of criticism to pass, it is that the rents are rather high. The two-roomed tenements are being let at 6s. 6d. per week and the three-roomed tenements at 8s.6d. per week. There was some mention by one speaker at Saturday's opening ceremony of a small balance in favour of the ratepayer from this scheme, but the Battersea Borough councillors do not need to be told that it is a very undesirable thing to make a profit, however small, out of the housing of this class of the community.

The estimated cost of the scheme, including the formation of Town Hall Road, which has been paved throughout with patent hard York non-slip stone, is £10,414.

Most of the three-roomed tenements in Theatre Street have a frontage of 23ft. 9ins., and a depth of 27ft. 6ins. The living-room measures 14ft. 7ins. by 10ft. 7ins., bathroom-scullery 9ft. 0ins. by

THE NEW WORKMEN'S DWELLINGS AT BATTERSEA.

THE MAYOR OF BATTERSEA.
(Ald. W. J. West.)

THE TOWN CLERK.
(Mr. Marcus Wilkins.)

THE SURVEYOR.
(Mr. T. W. A. Hayward, A.M.I.C.E., M.I.M.E., F.S.I.)

7ft. 3ins., and bedrooms 15ft. 0ins. by 8ft. 6ins. each. One bedroom to each first floor tenement is a little larger, and measures 15ft. 0ins. by 11ft. 6ins., exclusive of space over staircase. The two-roomed tenements have a frontage of 17ft. 6ins. and a depth of 29ft. 0ins., the living-room measuring 13ft. 6ins. by 13ft. 0ins. (inclusive of porch), bathroom-scullery 13ft. 6in. by 6ft. 0ins., and bedroom 10ft. 6ins. by 10ft. 0ins.

The three-roomed tenements to Town Hall Road have a frontage of 23ft. 0ins. and a depth of 27ft. 6in., the living-room measuring 13ft. 10ft. by 10ft. 7ins., bathroom-scullery 9ft. 0ins. by 7ft. 3ins., and bedrooms 15ft. 0ins. by 8ft. 0ins. One bedroom to each first floor tenement is a little larger and measures 15ft. 0ins. by 11ft. 0ins., exclusive of space over staircase.

The two-roomed tenements in the centre of Town Hall Road have a frontage of 26ft. 6ins. and an average depth of 18ft. This extra length of frontage has been necessitated owing to there being very little depth of land at the back of the Town Hall villas previously erected on the site. The living room measures 13ft. 6ins. by 12ft. 10ins. (inclusive of porch), bathroom-scullery, 10ft. 0ins. by 6ft. 0ins., and bedroom 12ft. 6ins. by 9ft. 0ins. The height of all the living-rooms and bedrooms is 8ft. 9ins. The whole of the tenements are fitted with kitchener, copper, bath, and sink, and the tenements on the first floor are, in addition to the front entrance staircase, provided with teak staircases, giving access to the back garden, which is allotted to each tenement.

The living-rooms are fitted up with combined food cupboard and dresser with cupboard under and pot-rack above. There are picture rails in the whole of the living-rooms, and a hanging wardrobe and picture rails in the bedrooms. Ample shelving accommodation is provided in the sculleries, and hat and coat rails in the passages.

The dwellings are built of good hard stock bricks, the fronts being faced with Leicestershire red, and the roofs slated with Welsh Countess slates, capped with red ridge tiles, the coping to party walls being red tiles.

The floors are constructed of coke breeze and Portland cement, the first floor being supported with steel joists, and the boarding nailed direct to the coke breeze. The walls between the passages and the bedrooms are also constructed of coke breeze slabs, 3ins. thick, set in cement. The plaster on the walls is executed in Sirafite plaster.

The whole of the internal wood-work throughout the buildings is grained in oak, and twice varnished, the walls of the living-rooms, bedrooms, and passages being papered, and the scullery distempered. The elevations of the dwellings are quite plain, but gables with moulded coping and ball terminals at the apex have been introduced over some of the entrance doorways to form a break in the skyline.

Each tenement has its own separate entrance and back garden, and the whole of the floors are fireproof throughout, these being constructed of coke breeze concrete and steel joists. The houses are provided with Venetian blinds to the windows, and are wired throughout, and fitted with electric light and fittings by the Council's workmen, and electrical energy will be supplied on the penny-in-the-slot system, at a cost of, approximately, 1d. per night.

The most interesting portion of the kitchen, or living- room, and the scullery-bathroom, is the combined kitchen range, copper, and bath arrangement, patented by Mr. Councillor Cornes, of Leek, Staffordshire.

The apparatus has been designed so as to secure the maximum of convenience as regards cooking, heating, and washing, with the use of a hot or cold bath, at a minimum cost of fuel. The heating and cooking range is fixed in the kitchen, the grate being in the centre, with an oven on one side and a boiler on the other. The boiler has a capacity of twelve gallons of water, ten gallons of which can be run off, the remainder being held in reserve. The water can be kept at a moderate heat for general domestic requirements. This apparatus, it may be added, has been fitted in estates at Camberwell, Hornsey, Manchester, Hanley, and Rotherham. Judging by what we saw of it on this estate, other local authorities would do well to introduce it into their workmen's dwellings.

These houses are a good example of the triumph of direct labour. All workmen employed by the Battersea Borough Council observe the forty-eight hour week, and the wages paid to the various trades range from 7½d. per hour to 11d.

The plans and specifications have been prepared by the borough surveyor (Mr. T. W. A. Hayward, A.M.Inst.C.E., etc.), and the whole of the building work and the formation of the new road had been carried out by the Works Department, under his supervision.

HOUSES IN COURSE OF ERECTION.
(The photograph in the corner represents bath which backs on to the patent kitchen range.)

THE MUNICIPAL SURVEYOR.

Raising the Status of this Important Official. A Great Work Done by the Incorporated Association of Municipal and County Engineers. Its Rise and Progress. Attitude Towards the Problems of To-Day. Model Building Bye-Laws.

It is not long ago that Judge Grantham, when before the President of the Local Government Board with a deputation, speaking on the question of rural building bye-laws, said that the only qualification of a certain surveyor was that he kept a public-house.

The gibe is not altogether without sting. The qualifications of the municipal surveyor—at least the rural surveyor—are not as high as they ought to be. We are glad, for the dignity and importance of a profession which contains so many able men, and is so indispensable to the health of the community, that this matter has not escaped attention.

At the present moment, the Incorporated Association of Municipal and County Engineers is working hard, with the object of getting the Local Government Board to insist, and to take such steps as may be necessary to guarantee, that only men properly qualified should be appointed to this office.

The Status of the Surveyor.

As the whole *raison d'etre* of the Association is to elevate the status of the surveyor, it is necessary to begin at the beginning to understand its attitude to this very important question. Thirty-five years ago, Mr. Lewis Angell, the ex-Surveyor of Stratford, London, E., wrote to the Chairman of the Royal Sanitary Commission (the Right Hon. S. B. Adderley, M.P.) —this was before the days of the Local Government Board—bringing before him the question of the protection of the municipal surveyor. He pointed out that the surveyor of a local board ought to be protected in a similar manner to poor-law officers, and appeal should always be possible to some higher power, and he instanced as a higher power, or, as he called it, "some power above," the now defunct Local Government Act Office. The letter proceeded to point out that "the duties will never be properly carried out until (1) the officers are fairly paid, and (2) duly protected." He showed that there was no reason why the appointment should not have social consideration, and be sought after by qualified men like the office of town clerk or medical officer of health.

That was the first spade work of this Garibaldi amongst municipal surveyors, who ultimately became the Father of an important Association. He seems, however, to have been ploughing the lone furrow, for, beyond a formal acknowledgment, nothing came of the letter. In 1871, Mr. Angell wrote to the Secretary of the Royal Sanitary Commission (Mr. W. H. Birley), and referred to his letter of the previous year to the Chairman of that body, urging that the points set out should be considered, and offering to tend any explanation of the views of the local board surveyors, of whom there were some hundreds in the kingdom," and without whose "intelligent air no real progress can be made."

Early Efforts.

This time, the formal reply contained a copy of a clause of a recommendation of the Commission, which stated that: "the officer of every local health authority should be appointed and removed by such authority, but medical officers of health should be appointed subject to the veto, and should not be removed without the sanction of the Central Authority, and inspectors of nuisances should be removable either by the Central or the Local Authority."

This did not advance matters. Mr. Angell again wrote to the Right Hon. C. B. Adderley, this time regretting that the surveyors had not had an opportunity of giving evidence before the Commission. He stated that the local board surveyors had agreed upon united action, and hoped to have the assistance and the sanction of the Royal Commission in the matter. A day or two later, the Secretary to the Commission wrote to Mr. Angell saying that it was too late to take any further evidence.

This door being now closed, Mr. Angell asked the Home Secretary to receive a deputation of local surveyors on the subject of a new Sanitary Act, which was then before the Home Office. Correspondence ensued with both the Home Office and the Local Government Act Office. To the latter department, Mr. Angell pointed out that, under the old General Board of Health, the surveyors had protection in their appointments. Protection, he said, should extend also to the salary, "experience having shown that when local boards cannot resort to direct dismissal they accomplish their object by the reduction of salary."

Steps Towards Combined Action.

The time seemed now ripe for combined action. The first suggestion for the formation of an Association was made in a circular letter addressed by Mr. Angell on Feb. 27, 1871, to the various local board surveyors in the kingdom. A preliminary meeting was held six weeks later at the offices of Mr. Angell, Town Hall, Stratford. It was resolved that Mr. Angell be requested to communicate with the Home Secretary to request the favour of the reception of a deputation of local surveyors upon the subject of the proposed new sanitary Acts.

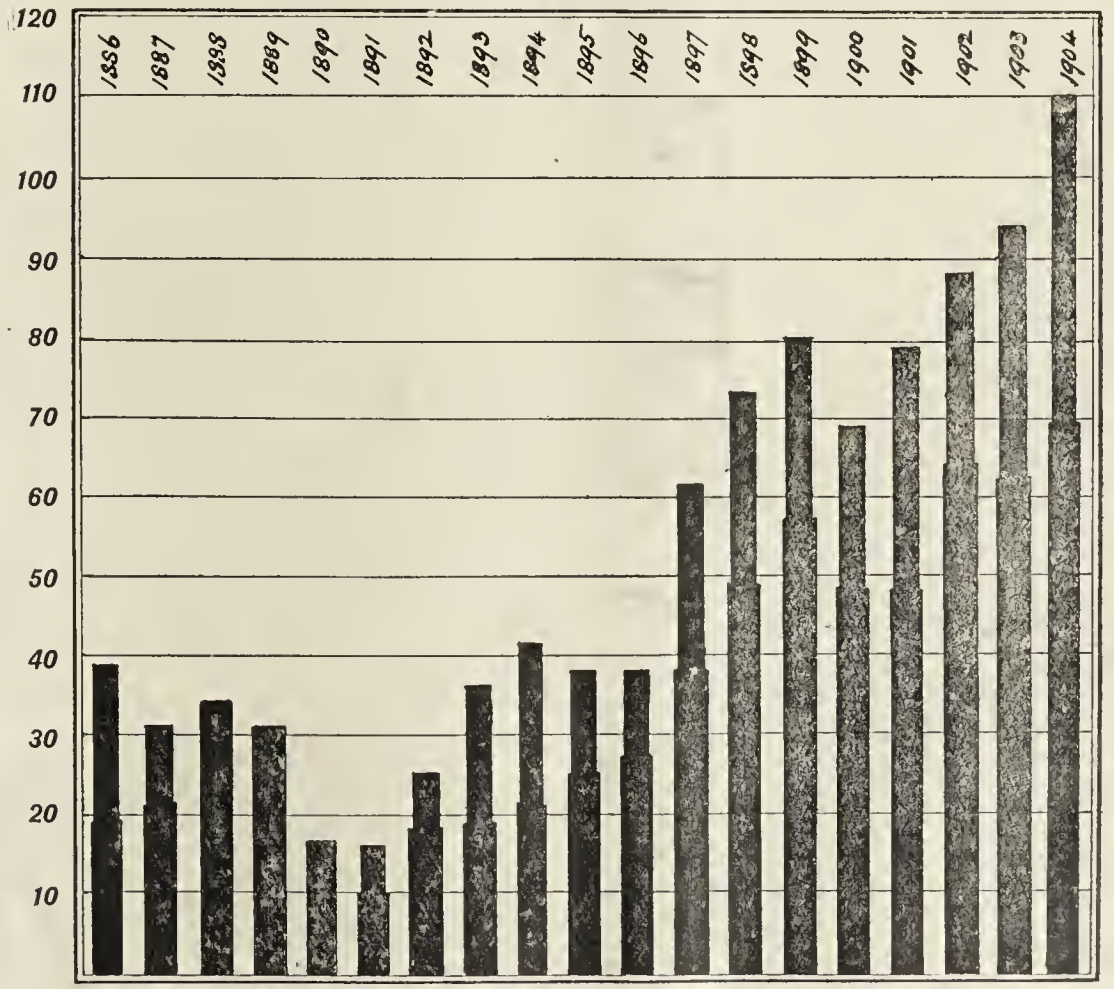
The birth of the Association was not yet, but on the 29th April, 1871, a conference was held at the Institute of Civil Engineers. This appears to have been in response to a great number of appeals by surveyors, asking for protection in their tenure.

"We are at present at the mercy of a clique," wrote one surveyor, "by which our tenure of office is rendered most insecure." Another wrote: "I have held the office of surveyor to the ——— Local Board for seven years, and at the present time am the most unpopular man in its service. It is to me a source of constant regret that I have been able to do so little for the sanitary improvement of the district." At this April meeting it was resolved that a small executive committee be formed for watching the interests of surveyors during the progress of the Local Government Bill through Parliament, and that the committee should be authorised to take such action as might in its judgment be desirable. Among the subjects discussed were the advisability of forming an association of surveyors and the necessity for examination of candidates for public appointments.

Attitude of the First President of the L.G.B.

The Local Government Board now came into existence, and the next year (1872) we find it recorded that at a meeting of the Executive Committee Mr. Angell proposed that a memorial be presented to the new body. The Right Hon. James Stansfeld, M.P., who was the first President of the Local Government Board, was requested to receive a deputation. On Feb. 8, a memorial was presented. After hearing the memorial, the President expressed his sympathy with the local surveyors, but "political considerations, and his respect for the principles of local government prevented the introduction of the protection sought by the surveyors, which he feared would imperil the Public Health Bill." He hoped rather that an improved position of sanitary laws and the greater interest which he hoped the public would take in sanitary matters, and consequently the improved constitution of local boards, would accomplish what the deputation desired without any interference with the liberty of action which boards possessed over their officers. He "took the general view of the question rather than the personal view adopted by the officers, and had too much faith in local government to think that it was capable of such abuse as represented to me by the statements of the deputation." He could not imperil the Bill by the introduction of features which would provoke opposition. The President, however, hinted that the surveyors could obtain the introduction of the clauses desired by the deputation by parties other than those promoting the Bill.

The Association was born in the atmosphere of protection—of tenure. The in-



DIAGRAMS SHOWING YEARLY ENTRIES OF CANDIDATES FOR EXAMINATION.
(The thicker portions of the columns show London figures.)

augural meeting took place on May 2, 1873, at the Institute of Civil Engineers, which body is looked upon by surveyors as their *alma mater*. Characteristically of a meeting of Englishmen, a dinner was afterwards held.

From this starting point the Association was worked by Mr. Charles Jones, now Borough Surveyor of Ealing, who was Hon. Secretary up to 1880. In this year, Mr. C. Graham Smith was made first paid Secretary. He had charge for twelve months, and in 1881 Mr. Thomas Cole, Assoc.M. Inst.C.E., was asked to take the appointment, and has since filled it with conspicuous success. During Mr. Cole's tenure, the Association has grown from a membership of 200 to 1,130. The first title of the body was the "Association of Municipal and Sanitary Engineers," but in 1890 it was registered under the Companies Act in the name of the "Incorporated Association of Municipal and County Engineers."

Examination Tests.

Only one or two main branches of the work from this point can be touched on within the limits of our space. One important branch are the voluntary examinations of candidates for the office of municipal surveyor, the first of which was held on April 10, 1886, at the offices of the Institute of Civil Engineers. They are held twice a year—one in London in April, and the other in October in the country, at Birmingham, Manchester, or Liverpool, and

MR. A. T. DAVIS, M.Inst.C.E.
(President of the Association).

our diagram shows how they have increased in popularity. The work under examination is divided into four sections: (1) Engineering as applied to municipal work; (2) building construction and materials; (3) sanitary science; (4) municipal and local government law. The Board of Examiners are all members of the Association, the idea being that none are so capable of forming right judgments as to the qualifications necessary for surveyors as surveyors themselves. From the following list, it will be seen that the examiners are all municipal engineers of the highest standing:—Mr. Lewis Angell, M.Inst.C.E., F.R.I.B.A., Fellow of King's College, London; Mr. J. P. Barber, M.Inst.C.E.; Mr. W. Nisbet Blair, M.Inst.C.E.; Mr. A. E. Collins, M.Inst.C.E.; Mr. A. T. Davis, A.M.Inst.C.E.; Mr. J. T. Eayrs, M.Inst. C.E.; Mr. A. M. Fowler, M.Inst.C.E.; Mr. C. Jones, M.Inst.C.E.; Mr. J. A. Brodie, M.Inst.C.E.; Mr. C. H. Cooper; Mr. James Lemon, M.Inst.C.E., F.R.I.B.A.; Mr. Jos. Lobley M.Inst.C.E.; Mr. A. B. McDonald, M.Inst.C.E.; Mr. Francis J. C. May, M.Inst.C.E.; Mr. J. Price, M.Inst.C.E.; Mr. O. C. Robson, M.Inst.C.E.; Mr. R. J. Thomas, M.Inst. C.E.; Mr. H. T. Wakelam, M.Inst.C.E.; Mr. W. Weaver, M.Inst.C.E.; Mr. T. H. Yabbicom, M.Inst.C.E.; Mr. E. G. Mawbey; Mr. A. E. White; Mr. C. F. Wike.

These examinations have been recognised from the very first as being highly valuable, and last year the Council of the Association deemed it necessary to enjoin that all candidates for the examinations should show proof of thorough general education previous to their being allowed to sit for examination. Attached to the syllabuses as now issued is a schedule of the educational requirements. There is an orphan fund in connection with the Association; but it is not carried out from the central offices, as the Association cannot, under the Companies Act, use its money in that way. The Council of the fund are all members of the Association. Very good work is being done.

Further Work by the I.A.M.C.E.

Another important part of the work of the Association are the district meetings. For its purposes, the whole of the kingdom is divided up into districts. Each district has a secretary, and the Association tries to hold one meeting in each district in the year. The following are the districts and their hon. secretaries:—Eastern District, Mr. J. W. Cockrill, M.Inst.C.E. Great Yarmouth; Home District, Mr. R. J. Thomas, M.Inst.C.E. Aylesbury; Irish District, Mr. R. H. Dorman, M.Inst.C.E., Armagh; Lancashire and Cheshire District, Mr. C. Brownridge, Assoc.M.Inst.C.E., Birkenhead; Metropolitan District, Mr. J. R. Dixon, Assoc.M.Inst.C.E., Shoreditch; Midland District, Mr. H. Richardson, A.M. Inst.C.E., Handsworth, Birmingham; Northern District, Mr. J. P. Dalton, Ryton-on-Tyne; Scottish District, Mr. W. Dyack, M.Inst.C.E., Aberdeen; Wales (North), Mr. J. W. M. Smith, Wrexham; Wales (South), Mr. W. E. C. Thomas, Assoc.M.Inst.C.E., Neath; Western District, Mr. J. S. Pickering, Assoc.M.Inst.

MR, ARTHUR E. COLLINS
(Nominated Next Year's President).

C.E., Cheltenham; Yorkshire District, W. H. Hopkinson, Assoc.M.Inst.C.E., Keighley. There is also an India District, of which Mr. J. Hall, M.Inst.C.E., Bombay, is Hon. Secretary. At these district meetings, papers are read describing the local works, which are followed by discussions on the papers and visits to the works. The annual meeting is held at the end of June or the beginning of July, and takes place once in every three years in London. The other annual meetings are held in the town of the President, who this year is Mr. A. T. Davis, M.Inst.C.E., County Surveyor, Shrewsbury. Papers on general municipal engineering are read and discussed at these annual conferences. The results of the year's work are published in a volume of proceedings, the last one being a volume of 670 pages. The book shows that a list of valuable papers bearing upon municipal engineering work, in addition to those contained in the volume, may be seen at the offices. This last issue also contains a very valuable index of Vols. I. to XXX.

Model Building Bye-Laws.

A big work that the Association has in hand at the present moment is the consideration by a special committee of the model bye-laws issued by the Local Government Board. The report of this committee, which has been sitting nearly two years, will show where the bye-laws might be amended. It was pointed out in an interim report of the Committee in December last that, in considering the question, the committee had had in view the desirability of removing certain restrictions in the bye-laws, in order to allow of the cheaper construction of buildings, particularly with regard to the dwellings of the working-classes, both in urban and rural districts, and that, in suggesting such modifications, the Committee had carefully kept in mind the necessary stability, security against fire, and the sanitary arrangements of the buildings.

Whatever opinion may be held on this question, the views of practical men, so closely engaged in carrying out the bye-law, must carry great weight.

L.C.C. NEW STOCK ISSUE.

THE Comptroller of the London County Council announces a further issue of £2,500,000 London County Consolidated Stock (minimum price of issue £95 10s. 0d.). The Council is prepared to receive tenders for the whole or any part of this amount on Monday next, March 20, up to two o'clock in the afternoon, at the Bank of England; but no allotment will be made of less amount than £10 stock. The stock bears interest at the rate of £3 per cent. per annum, which is not what one can always get nowadays from an absolutely safe investment. Arrangements have been made with the Bank of England for the automatic investment of dividends, if so desired, as in the case of Government Stock. Moreover, a fund for paying divi-

MR. THOMAS COLE, Assoc.M.I.C.E.
(Secretary of the Association).

dends on and redeeming stock has been constituted, and this fund is under the supervision of the Treasury, which satisfies itself that the Council annually raise by rate the money necessary for those purposes. For the dates at which the money will be required we refer readers to the advertisement in another column. But it may be mentioned here that on and after April 5 next payments in full will be received, and a discount at the rate of 2 per cent. per annum will be allowed. We would draw special attention to the fact that a full quarter's dividend will be payable on June 1, 1905.

BRIDLINGTON ELECTRICITY.

(To the Editor.)

SIR,—On Page 194 of the last issue of your very useful paper it is stated that "it is now claimed for Bridlington that it is the only town in the United Kingdom whose streets are entirely lighted with electric light." This claim cannot be substantiated.

For the last five years the streets of the borough of King's Lynn have been entirely lighted with electricity.

There are 22 arc lamps (1,000-c.p. each), 30 Nernst lamps (66-c.p. each), and 450 incandescent lamps (32-c.p. each), in all, representing 2,350 equivalent to 8 candle-power.—Yours, &c.,

J. W. WOOLSTENCROFT,
Town Clerk.

Town Hall, King's Lynn,
March 13, 1905.

OUR PRIZE ESSAYS.—II.

Present Systems of Audit Discredited. The Desirability of Giving Auditors some Power to Enforce, if Necessary, their Legitimate and Reasonable Demands. Uniform System of Accounts "Instructive, Helpful, and Advisable." What the Terms Depreciation and Obsolescence should Cover: the Former to a Large Extent a Definitely Ascertainable Figure, but Obsolescence Purely a Matter of Assumption. Loans should be Granted for Much Longer Periods than those now Obtaining.

[*By MR. F. A. MITCHESON, Accountant to the Corporation Tramways, Manchester, the Winner of our Second Prize.*]

THE prominence that has recently been given to the finances under the control of local governing bodies is doubtless due to their ever-growing demands for the wherewithal to carry on their schemes, such schemes being the outcome of the higher standard of moral and physical well-being adopted by our local legislators in their administration of parochial affairs, and perhaps more particularly the result of their incursions into the realms of trade whenever such a policy appears to be of public benefit.

This prominence has resulted in a considerable amount of criticism being directed against the financial methods employed. While it is impossible to free a large measure of this criticism from the imputation of being interested, let us welcome the increased interest in local politics as a healthy sign. Too much apathy has recently been evinced by the average citizen in many affairs—both parochial and national—that concern him very closely, and a clearer realisation of his individualistic rights and duties will be of incalculable advantage to the nation at large.

In this spirit, but diffidently enough, I approach the important subject of municipal accounts and their audit, and I shall endeavour to deal with the salient points as clearly and concisely as their importance and varying phases will permit.

Adequate Supervision.

I take it that the desirability, or even the necessity, for an adequate supervision of the financial transactions of our local governing bodies, will be at once accepted. There is an undoubted tendency, a natural one I fear, when men are engaged in the spending of other people's money, to a laxity not permitted when they are dealing with affairs more closely affecting the personal pocket. It is, therefore, only right that all ratepayers should have every assurance that their elected representatives are dealing with the funds entrusted to them to the best and fullest advantage of their constituencies and in accordance with the soundest known methods of finance.

As indicated in my introductory remarks, there is little doubt but that the increase of municipal trading has contributed largely to the demand for a closer scrutiny of the financial methods employed by our local authorities, and it is this part of the subject which will demand the most attention.

At the same time, I am strongly of opinion that some method of unbiased inquiry into the expenditure of purely spending departments is necessary, and the subject requires the serious attention of those responsible, under any system of municipal audit, for the certification of the accounts.

It will be obvious that the diffieulties attending such inquiry would be very great: but I trust that the powers, which in my opinion should be vested in the auditor, and which it is now my task to suggest would enable a satisfactory supervision to be exercised.

Present Systems of Audit.

It may not, at this point, be out of place to deal shortly with the systems of audit now in vogue.

A few municipalities have, by the provisions of their special Act, the option of adopting the Local Government Board audit; but, as a general rule, corporations are subject to the statutory provisions of the Act of 1882, which relegates the responsibility to two auditors elected by the ratepayers and one appointed by the Mayor.

County Councils, London Borough Councils, and all Urban District Councils are subject to the audit of the Local Government Board.

The report of the Joint Select Committee of the House of Lords and the House of Commons on Municipal Trading, issued in July, 1903, indicates that both these systems are discredited, and it will be, doubtless, generally admitted that these systems are inadequate and inefficient. It will not, therefore, be considered necessary to labour the point further, the object of this paper not being to criticise existing systems, but to endeavour to outline a new one.

At the outset, I consider that an audit should be compulsory, and on uniform lines, for all public governing bodies, and the Legislature will have the task of deciding to whom the responsibility should be entrusted.

Trained Experts

In this task, I am of opinion that it will be difficult to ignore the existence of a large and important body of trained experts to be found in the ranks of the Institute of Chartered Accountants and the Society of Incorporated Accountants and Auditors. I am far from suggesting that the qualifications and methods of professional accountants are at present beyond reproach; but, at the same time, I cannot suggest the constitution of any other body of men who, by education, training and practice, could excel their qualifications for the work. Further, I have little hesitation in saying that, were the Legislature to make this public recognition of the importance of their profession, and by the terms of their appointment impose definite duties and responsibilities upon them, there would be little doubt that the profession would, by special training and study have no difficulty in meeting all the necessary requirements.

Under the assumption, then, that properly trained professional accountants should be entrusted with the audit of all local governing bodies, the important question arises—in whose hands should their appointment rest?

Appointment of Auditors.

I am of the opinion that the governing body should itself appoint the auditors. The proposal of the Select Committee that the Local Government Board should confirm the selection of the Council I consider to be a work of supererogation. I state, without hesitation, that, assuming the auditors to be selected from the ranks of properly qualified professional accountants, the risk of their not performing their duties without fear or favour would be infinitesimal and scarcely worthy of serious consideration. On the contrary, the veto of the Local Government Board might prove, if exercised at all, a source of friction and dissatisfaction.

In this connection, the question also arises as to whether it would be desirable to appoint auditors practising locally or whether, to secure absolute independence, they should be selected from an outside district. It should be remembered that professional accountants, besides having their professional prestige to maintain, are also ratepayers, and it is most probable that the auditors most likely to serve well the community in whose interests they are working will be selected from that community in which their personal interests are bound up. It is in the smaller districts that purely parochial influences of a harmful character might more probably be brought to bear on the auditor; but it is practically certain that in such districts it will be found necessary to go outside the borders to find men possessing the necessary qualifications.

Although I disclaim the suggestion that the Local Government Board should have the power of veto with regard to the appointment of auditors, it is practically certain that if the Legislature takes up this question at all, it will be desirable to give the auditors some power to enforce, if necessary, their legitimate and reasonable demands, that is to say—in the event of any authority declining to act upon the recommendations of the auditors, they, the auditors, should have the power of reference to some independent tribunal. Some such tribunal might be constituted by the Local Government Board or the Board of Trade, or might be specially instituted for the purpose, but the actual constitution thereof appears to me but a matter of detail.

Loss of Control Feared.

Some ardent municipalists seem to fear a possible loss of control over their finances, but a thorough and efficient audit does not necessarily entail this. At the time, it must be obvious that if an audit is necessary, the conduct of the finances of any undertaking must be guided by the reasonable demands of the auditors.

Before we leave the subject of the appointment of the auditors, the question of remuneration is worthy of consideration. I am fully satisfied that many of the possible evils attached to an audit by professional accountants would be removed if they were adequately paid. Those authorities who now appoint professional auditors naturally offer as little as they reasonably can, and the firms who undertake the work often do so with the knowledge that it will not pay except perhaps as an advertisement. There is thus, I fear, a strong temptation to leave the conduct of the work mainly in the hands of poorly-paid clerks and inexperienced pupils, a proceeding quite fatal to an intelligent and thorough audit. In this connection, therefore, I suggest that the legislature should adopt a scale of charges sufficiently liberal to ensure the work being done by fully-qualified and adequately paid men.

The appointment of the auditors having been made, it becomes necessary to consider how they should approach the task entrusted to them.

It will be at once accepted that the only reason for the Legislature to take any steps in the direction of providing or insisting upon an audit of public accounts will be, not to concern themselves with matters of detail, but principally to be satisfied that broad principles with regard to important methods of finance will be definitely settled and uniformly enforced.

Preparing Accounts.

In the first place, the accounts should be prepared in such a manner that the actual financial result of all departments, and trading departments in particular, should be clearly shewn. To ensure this end, the antiquated system of merely recording cash receipts and payments should be at once abolished. The evils and abuses of this system have been too much discussed and demonstrated to need further comment here: it must, therefore, be provided that the accounts should be made up on a proper income and expenditure basis, and include all accretions of income and all known liabilities in a proper accounting manner. Every care should be taken that each and every department bears its proper share of any expenditure relating to that department: in short, that the results of trading departments are not bolstered up at the expense of the purely spending departments, and similarly that the former are not saddled with items of expenditure properly chargeable to the latter.

A few words also with reference to the uniformity of accounts may not be considered out of place. The question, though undoubtedly of great interest, and, if practicable, of much value, is not vital in its importance, and if the auditors are directed by law to insist upon certain methods of accounting, such as I propose

to discuss later, I am of opinion that this question of uniformity can safely be left to those more nearly concerned.

Uniform System.

It is particularly in the case of trading departments that a uniform system of accounts is instructive, helpful, and advisable. In this connection, it may be of interest to note that the Municipal Tramways Association of Great Britain have taken the initiative, and have approached the Association of Municipal Accountants, with the result that a standard form of accounts for this branch of municipal trading has been agreed upon, and will probably be accepted by all the leading municipalities in the kingdom. Doubtless, those interested in the other trading concerns usually carried on by municipalities will follow the lead thus given and agree upon a similar arrangement in regard to their respective undertakings.

Renouncing any attempt to discuss the form in which the accounts should be presented, I yet consider that certain principles with regard to the statement of affairs in the balance-sheet are worthy of notice, and will not be considered out of place, in view of various points which may call for comment later.

The question arises as to whether the assets stated in the balance-sheet should be written down by any depreciation provided, the renewals of such assets being added thereto as and when they arise, or whether the assets should be stated at their original cost, the funds provided for their renewal being shewn as part of the available surplus on the opposite side of the statement, all renewals or expenditure of that nature being charged thereto.

There is no vital principle involved between these two systems; but I am of opinion that, because of the somewhat unique nature of municipal finance and the absolute security of tenure which a municipality has in regard to its assets, the latter course is the more convenient one to adopt, with perhaps some slight modifications.

Assets of Municipal Undertakings.

The assets of municipal undertakings may be divided, broadly, into three heads, as under:—

1. Fixed assets necessary for the carrying on of the business.
2. Unremunerative and unrealizable assets, such as goodwill, preliminary expenses, costs of obtaining powers, &c.
3. Floating assets, such as ordinary stocks, stores, cash, &c., which may be regarded as working capital.

The assets under the first head are provided out of borrowed moneys, and should be stated at their original cost, the value being maintained as indicated in a later portion of this paper. The assets under the second head are provided out of borrowed moneys, but should be written down in the manner suggested in the forthcoming discussion of this point.

The floating assets set out under the third heading should be provided out of the revenue of the undertaking, and shewn at their stock valuation.

The most important question, however, that will require to be dealt with, and which must, necessarily, take the premier position in the essay, is that of depreciation, and it will be necessary to consider for a few moments the meaning of the term and the manner in which the same should be shewn or dealt with in the accounts.

Depreciation.

In my opinion, the term depreciation should simply be held to cover the provision, admittedly a necessary one, to meet the natural wasting of the assets which goes on, in spite of the most thorough system of continual repair and maintenance being employed to keep the asset up to its effective value. That is to say, a time must arrive when an asset will require to be entirely renewed, and depreciation is the provision to effect this renewal. It may be convenient to divide the wasting of an asset under two heads, as under:—

1. The continual wear and tear of the asset.
2. The gradual failure in the effective value of the asset, consequent on the above.

The continual wear and tear indicated under the first heading is provided for by the ordinary repairs and maintenance, the charges in connection with which are debited direct to the trading account, as and when they arise.

To provide for the complete renewal of the asset necessitated by the cause set out under the second heading, a depreciation or renewals fund must be formed. This will be done by setting aside annually such a sum as will provide the means for the renewal of the asset at the end of the period when it is assumed such asset will have lost its effective value. This fund, as previously stated, will be shewn in the balance-sheet ear-marked for the purpose for which it has been formed, and when the expenditure takes place the same will be charged against this fund.

Large Discretionary Power.

In this connection, it may at times be difficult to discriminate between what are actually ordinary repairs and what repairs may be considered in the nature of a renewal; but it is impossible in a paper of this description to lay down any hard and fast rule. So much must necessarily depend upon the nature of the asset which is being considered, and a large discretionary power must be given to those responsible for the making up of the accounts in matters of this kind. An electric tramway will furnish good examples, however, of rapidly-wasting assets of varying descriptions, which it may be interesting to consider for a few moments. In the case of the track, it is a matter of common knowledge that ordinary repairs are quite insufficient and incapable of providing for the gradual wearing away of the rail, which goes on till the time arrives when the rails must be taken up bodily and be replaced by new ones at great expense; hence a renewals fund must be formed to meet this expense.

The contrary is the case with the overhead equipment; all the wearing parts can be gradually and effectively replaced, the charges in connection with the same averaging pretty well from year to year. In this case, there appears to be no necessity for a depreciation or renewals fund, the ordinary repairs being sufficient to keep the asset always at its effective value.

It is not my intention to discuss all the varying kinds of assets which would require to be dealt with, sufficient having been said to indicate the lines upon which, in my opinion, this subject should be approached.

Possibility of Obsolescence.

In the few foregoing paragraphs, it has been my attempt to define depreciation as being the charges necessitated by the actual wear and tear of the asset and the provision for the renewal of the same; but a further item has to be considered in many trading undertakings, perhaps those more particularly of an electric nature, and that is the possibility of obsolescence. This charge is often held to come under the head of depreciation; but, I consider, erroneously so. Again, I would emphasize the fact that depreciation must be an admitted, and, to a large extent, definitely ascertainable figure. Obsolescence, on the contrary, is purely a matter of assumption, and, while it might be considered a matter of policy to form a reserve fund for the possible supersession of certain assets, it should in no way be compulsory on a municipality to make any such provision. Take, for example, the overhead electrical equipment of a tramway. Here we have an asset which, as I have endeavoured to show in the earlier pages of this paper, may be kept up to its effective value by the ordinary repairs and maintenance. At the same time, there is the existing possibility that the coming years may produce some method which would entirely supersede this perhaps somewhat cumbrous means of conveying the electric fluid. Should, then, it be compulsory for a municipality to provide for such a contingency? I say most decidedly not. It should be purely a matter of policy, depending entirely upon the financial position of the concern. At the same time, I am of opinion that if the loans in respect of this asset are repaid, borrowing powers should be granted for the new system. Assuming, then, that the principles of providing depreciation or renewals funds for assets that cannot be effectively kept up by ordinary maintenance is accepted, it should be the practice to make these charges annually and spread them over the time to the point when the renewal will be required.

I consider the practice, followed by some municipal accountants, of charging these renewals as and when they arise is one to be much deprecated. If net profits, ascertained in this manner, are handed over in relief of the rates, the time will come, in many undertakings, when there will be a heavy demand for renewals which the revenue of the concern will be unable to cope with, and the extinguishing of the annual contribution to the rates might prove a source of great financial difficulty to the municipality which has been the victim of such bad accounting. The only argument in support of this course being taken is, that the loan period will have expired simultaneously with the need for the renewal arising, and that the moneys required for the purpose could be again borrowed. Apart, however, from its undesirability, there is absolutely no warrant for this assumption, and it will, I think, be generally admitted that it is quite impossible for the Legislature to grant loan periods operating in this convenient manner. The method, therefore, of making proper annual provision will commend itself as being by far the more businesslike and practical course to adopt. All the aforesaid charges should be debited to the revenue account of all trading undertakings before a net profit, which may be considered as available for relief of the rates, is arrived at.

What is Customary.

The critic may here suggest that many of the matters relative to the renewal of assets, for various undertakings, are of a highly technical nature, and that it is quite beyond the power of even the most expert auditor, whose training is necessarily of a financial nature, to express an opinion on the provision made under the above-mentioned head. The difficulty is, I think, more apparent than real. In matters of this kind, the rule must generally be fixed by what is customary; but, at the same time, the varying conditions in different localities may so often affect the procedure in this respect that it would be difficult for even a technical expert to lay down any arbitrary method to be adopted. To make my meaning clearer, I wish to indicate that, at the best, the provision for renewal based upon the life of any asset, must be purely in the nature of an estimate. If the auditor will be satisfied that some reasonable provision is being made, his duty will have been fulfilled. On the other hand, if he is conscious of his inability to deal with any point of this nature, reasonable facilities should be granted him to obtain the services of an expert to assist him in making his report.

Before leaving the question of how the auditors should deal with the assets of the undertaking coming under his supervision, with particular reference to their possible shrinkage in value, there is one subject that demands some attention.

Buying out Vested Interests.

It may be said that, almost without exception, when a municipality decides to enter into any branch of trading, there are vested interests to be bought out. The local authority deciding to take over the supply of gas, water, electricity, or the operation of a tramway system is generally under the obligation to purchase an existing undertaking usually in the hands of private capitalists. Thus it often happens that the municipality is saddled with the heavy purchase price of assets, which probably are largely of an out-of-date, worthless, or unproductive nature.

Particularly is this exemplified in the case of tramways. The introduction of electric traction into England is of quite recent date, and those local authorities who have taken over the working of the tramways in their district have been compelled to purchase, as a going concern, an effete horse-car system, the assets thus obtained being practically worthless for the purpose of electric traction. In such a case as this, the assets not applicable to the new system should be sold; any other assets which it may be considered desirable to retain, such as land and buildings, should be valued and shewn separately. This procedure will, in practically every case, still leave a large sum quite unrepresented by tangible assets, and any such sum as this may reasonably come under the category of goodwill.

Goodwill.

How, then, should this item be dealt with in the balance-sheet? This question with regard to private concerns has been the subject of much discussion; but it is generally accepted that the desirable course to pursue is to write down such an item with the view of eliminating the same from the balance-sheet altogether. In the case of a municipality, however, a method of so writing down this asset is ready to hand. I have endeavoured to show, in an earlier portion of this paper that sinking fund contributions can in no way be regarded as the provision or part of the provision for the depreciation of assets that are required for the purpose of carrying on the business, and which may require to be renewed from time to time. In the case of this item, which, for the sake of convenience, we have called goodwill, the same arguments do not apply, and thus the obvious course to adopt appears to be the annual writing down of this item by the amount of the sinking fund instalments, the asset being automatically extinguished at the end of the loan period, no liability, of course, existing for its renewal.

There are other unremunerative and unproductive assets, such as preliminary expenses in connection with the inception and formation of the concern, costs of obtaining powers, &c., &c., which will often find a place in the balance-sheets of the various undertakings, and these should be dealt with in a similar manner as that suggested for the "goodwill."

At this point, it may be convenient to discuss the question of sinking funds, and here I take it we ought to be agreed that a sinking fund is made obligatory in order that municipalities should eventually be out of debt in respect of the purpose for which the money was borrowed.

I think it is a matter for regret that many of our municipal financiers direct their policy on the assumption that continual reborrowings should take place for the same undertakings, or, in other words, that they should be continually in debt. This appears to be quite opposed to the intention of the Legislature, and also, I urge, to the general well-being of the great body of ratepayers.

I have so far advocated the adoption of sound financial and proper accounting methods in dealing with municipal accounts, but if this is insisted upon I consider that some revision of the methods of the Legislature, with reference to the granting of loans, is equally imperative.

Assuming, then, that a sound financial policy is adopted as outlined above, the present system of attempting to grant loans for a period corresponding with the life of the asset should be abolished.

Longer Loan Periods.

In the case of trading undertakings, the assets are of such a varying nature that it is quite impossible to do this, and I am of opinion that these two factors, the fixing of loan periods and the life of the assets, should be quite disassociated. Loans should be granted for much longer periods than those now obtaining, as undoubtedly the double burden of repaying the loan and of maintaining the undertaking in a thoroughly efficient way falls very heavily upon the present-day ratepayers.

It must be remembered that a sinking fund is the provision prescribed by law to enable our governing bodies to repay moneys borrowed, and this provision must be made out of the rates or out of the profits of remunerative undertakings. It will be obvious, therefore, that, if a charge is made against revenue account in respect of these sinking fund instalments, the funds thus retained must be used, and, indeed, are required for the repayment of these borrowed moneys. Under no circumstances can they be used for the purpose of any depreciation or renewal, charges which I have endeavoured to show are necessary.

Assuming, then, that all proper charges have been debited in the amounts, the balance of profit, if any, may rightly be used in the relief of the rates. The question as to whether municipal concerns, which probably make the profit out of one section of the ratepayers, and not necessarily the whole, should be exploited to relieve the burdens of the whole body of ratepayers, is one more of political signification than of financial interest, and is, therefore, beyond the scope of this paper.

We have now examined the lines upon which the principles of municipal accounting should be laid down, and also into whose hands the supervision of the accounts should be entrusted. For a few moments, it will be necessary to consider the rights of the auditors in the prosecution of their examination, and also their responsibility to the Council, and, through them, the ratepayers, upon their investigations being completed.

Joint Select Committee's Recommendations.

In this connection, I think it would be difficult to improve upon the recommendations of the Joint Select Committee, previously mentioned, and I therefore quote from their report, as under:—

Clause 17. The Committee are of opinion that it should be made clear by statute or regulation that the duties of those entrusted with the audit of local accounts are not confined to mere certification of figures. They therefore further recommend that:

(a) The auditor should have the right of access to all such papers, books, accounts, vouchers, sanctions for loans, and so forth, as are necessary for his examination and certificate.

(b) He should be entitled to require from officers of the authority such information and explanation as may be necessary for the performance of his duties.

(c) He should certify—

i. that he has found the accounts in order, or otherwise, as the case may be.

ii. that separate accounts of all trading undertakings have been kept, and that every charge which each ought to bear has been duly debited.

iiii. that in his opinion the accounts issued present a true and correct view of the transactions and results of trading (if any) for the period under investigation.

iv. that due provision has been made out of revenue for the repayment of loans, that all items of receipts and expenditure and all known liabilities have been brought into account, and that the value of all assets has in all cases been fairly stated.

Clause 18. Auditors should be required to express an opinion upon the necessity of reserve funds, of amounts set aside to meet depreciation and obsolescence of plant in addition to the statutory sinking funds and of the adequacy of such amounts.

Clause 19. The auditor should also be required to present a report to the local authority. Such report should include observations upon any matters as to which he has not been satisfied, or which in his judgment called for special notice, particularly with regard to the value of any assets taken into account.

In conclusion, I think that all municipalities will look forward hopefully to the time when the Legislature will consider this important question in all its bearings. Then, and not till then, the financial arrangements of all local governing bodies will be put upon a sound and satisfactory basis.

The result of such a consummation will indisputably be of direct advantage to our local authorities in particular, and to the nation at large.

DESTRUCTORS & ELECTRICITY.

(To the Editor.)

SIR,—Your correspondent "Careful Investigator," criticises, in a recent issue of your paper, a letter from me which appeared in a former issue.

My communication dealt with the factors governing the output of electricity per ton of refuse, and I shewed that this output is not solely dependent on the virtues of the destructor. The cost of upkeep, which your correspondent thinks I omitted, is not one of these factors.

The cost of labour quoted by your correspondent for Fulham includes not only the stokers' wages, but those of a number of men employed in the profitable utilization of bye-products from the destructor, and the cost of maintenance quoted also includes plant other than that for burning refuse and making steam. Possibly, the same remark applies to Hackney; but of that I have no personal knowledge. The cost for stokers' wages at Fulham is under 9d. per ton.

This shows how easy it is, even for a "careful investigator," to be misled by statistics when he does not know how they are made up.—Yours faithfully,

F. L. Watson.

Leeds, March 9.

RATING OF SITE VALUES.

(To the Editor.)

SIR,—Your correspondent "E. C." raises a very important point. No doubt if site-owners were to be rated only under future contracts they would protect themselves by a sliding scale rent, as "E. C." suggests. I have pointed out the same possibility in a paper elsewhere.

Mr. Trevelyan's Land Values Assessment Bill would dislocate the whole system of rating, for no practical benefit.

Without expressing an opinion as to the justice or desirability of putting a new charge on land-owners, but merely looking at the matter from a practical point of view, it is clear that if site-owners are to be touched at all, existing contracts must be reached over, and a local land rate levied on existing ground rents (or where not created, on site values) in the same manner as Property Tax is levied.

The expense of making an actual site valuation for each hereditament would be avoided where a ground rent exists, by taking the ground rent as the site value so long as current leases lasted. In other cases, a valuation would have to be made.

The land rate could be levied by the local authority on the occupier simultaneously with the tenant's rates, and be deducted by him from his rent, as Property Tax.

An objection is sometimes raised that by this method the land is rated twice; but rating is essentially a personal matter, and it is quite permissible to rate two persons in respect of one plot of land—one as owner, the other as occupier.—Yours, &c.,

J. H. W. Wheeler.

March 14, 1905.

Mr. H. K. Lewis, the Assistant Clerk to the Greenwich Union, has been presented by the Guardians and the Clerk with a valuable tea and coffee service and tray, accompanied by an illuminated address, congratulating him on having attained the anniversary of his fortieth year in poor-law service.

Mr. Lewis entered the service as junior clerk at the Stepney Union in March, 1865, and obtained an appointment at the City of London Union in 1870, and in 1874 was appointed Assistant Clerk at Greenwich, and has held the latter appointment thirty-one years.

The presentation was made by the Chairman (Dr. Gooding, J.P.), in the presence of the Guardians and Clerk.

NEW HEADS OF THE L.C.C.

London's Municipal Rulers, Chosen on Tuesday, are now Mr. Edwin A. Cornwall (Chairman); Mr. Evan Spicer (Vice-Chairman); and Lieut.-Colonel Probyn (Deputy-Chairman). A Striking Record of Public Work.

IN Mr. Edwin A. Cornwall, J.P., one of London's ablest administrators has been called to the chair of the County Council. Few workers in the increasingly important sphere of municipal government have achieved so much as he in so short a time. He has crowded into his forty years of life more activities than can be placed to the credit of the great majority of men at seventy. Entering the Council in 1892—three years after its creation—Mr. Cornwall had already won his spurs in the conduct of public affairs in London. The central authority was then upon its trial. It had no record of achievement similar to that it now possesses, and the almost immediate appointment of Mr. Cornwall as one of the whips of the Progressive party placed upon him the responsibility of taking part in the piloting of the Council through some of the most eventful periods of its existence. So marked was Mr. Cornwall's success, that in course of time he was offered—and accepted—the more important post of chief whip, and in carrying out the

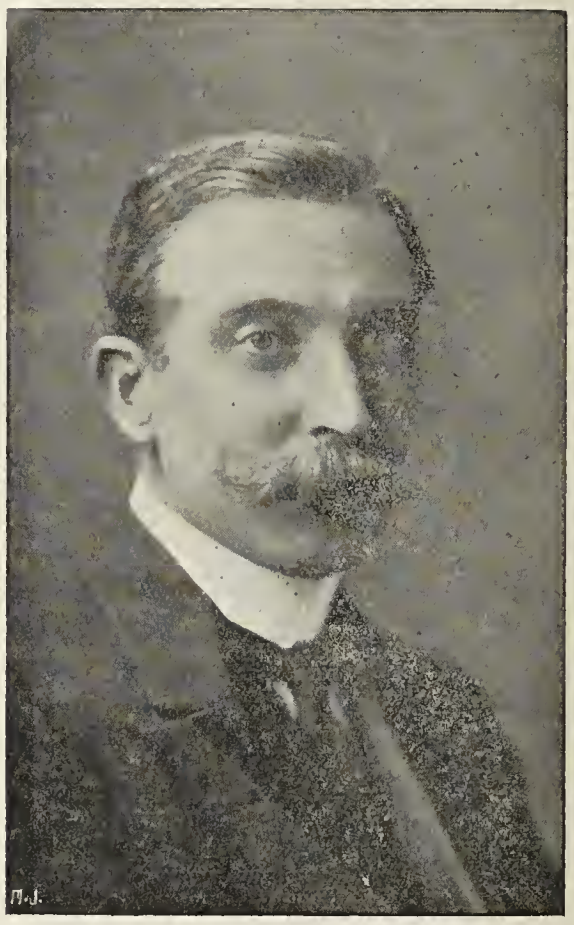
VICE-CHAIRMAN
(Mr. Evan Spicer, L.C.C.).

exacting duties attaching to that position he gained a reputation for organising capacity, diplomacy, and courage that is one of the most valued assets of his party, even at the present time.

A London County Councillor who efficiently performs his duties has little time to spare for other occupations. With committees meeting at the rate of ten or twelve a day, the demand upon the central administrator is exceptionally heavy, when compared even with the lot of the busy provincial councillor. Mr. Cornwall has served upon all the principal committees, and has been chairman of a great many of them. His most conspicuous success was his chairmanship of the Parliamentary Committee, a position that demands exceptional tact, unceasing vigilance, and continuous activity. Mr. Cornwall occupied this post with distinction for three years, and his other chairmanships include those of the Main Drainage Committee and the Rivers Committee. He has been vice-chairman of the Improvements Committee (at the time when the Holborn to Strand scheme was planned) and of the Local Government Committee, and has served as a member of the General Purposes, the Asylums, Establishment, Highways, and Parks Committees.

During his occupancy of the vice-chair of the Council itself—a position he now vacates in order to receive the highest honour in the Council's gift—Mr. Cornwall has found time to conduct the proceedings of one of the most important of the Education sub-committees—that of the day-schools. In this position, it has been Mr. Cornwall's duty to control exceedingly important and delicate negotiations, whose failure would have seriously hampered the effective administration of education by the Council. That he has succeeded so well is another tribute to his capacity, and to the wisdom of the choice the Council has made in selecting him as its head.

Alderman Evan Spicer, J.P., who becomes vice-chairman, did excellent work as chairman of the South London Polytechnics. Mr. Spicer worthily maintains the traditions of his family for philanthropy and personal service. He was vice-chairman of the committee that secured Brockwell Park for the public, and many other local causes in Dulwich owe much to his generous help and wise counsel. He has been a most useful worker on the Council in many capacities, but more particularly on the



L.C.C. NEW CHAIRMAN
(Mr. E. A. Cornwall, J.P.).

Finance Committee, the chairmanship of which he held for three years.

Lieutenant-Colonel Probyn, who has been chosen as Deputy-Chairman, is one of the best-known Moderate members of the L.C.C. He has been a prominent municipal worker for several years in the Westminster City Council, besides the L.C.C., and he held the office of Mayor not very long ago.

A MEETING of delegates from the South London Metropolitan Boroughs was held on Saturday, at Camberwell, to consider the question of reorganising the Association on more popular lines.

Mr. H. E. Blain (West Ham), vice-chairman of the Association, attended and explained the proposals to be submitted to the annual meeting at the Inns of Court Hotel, Lincoln's Inn Fields, on Saturday, March 25, at 6.30 p.m.

Officers who were unable to be present, and who are willing to assist in a scheme for reorganising South London, are requested to communicate with the Hon. Sec. (Mr. C. J. F. Camell) of the Camberwell Branch, Town Hall, Camberwell.

GAS COMPANY STATISTICS.

(To the Editor.)

SIR,—In the *Journal of Gas Lighting* of the 7th inst., there is given a tabular statement of the accounts of the Metropolitan Gas Companies for the year 1904. The editorial comment on these figures contains the following paragraph:—"The income derived from this invested capital amounted to £6,314,019 . . . leaving a gross profit of £1,661,713, being at the rate of £4 7s. 2d. per cent. on the capital. These figures show that the London Gas Companies do not earn the 'bloated dividends' which municipalizers were at one time only too ready to charge them with making."

A slight acquaintance with the history of the Gas Light and Coke Company will show that this is one of the false statements which the myrmidons of the capitalist in the Press are so good at making. If reference is made to the Gas Light and Coke Company's statement of accounts for June 30th, 1899, it will be seen that the capital (stock) stood at £21,642,000; a reference to the half-year's statement for June 30th, 1898, shows that the same capital (stock) was put down at £9,219,369 5s.: the sum at which it had stood for years, and which represents the capital subscribed. But during the year 1898 the capital had been "consolidated" by a capitalist Act of Parliament, without the addition of any more capital.

Note now the effect. What is really a dividend of 12¼ per cent. appears on these cooked figures as one of only £4 7s. 2d.,

DEPUTY-CHAIRMAN
(Lieut.-Col. Probyn).

and these honest gentlemen in the Press can twit the unreasonable municipalizers with not having any "bloated dividends" about which they can complain. Candid, isn't it?

ONE WHO HAS NOT FORGOTTEN.
March 15, 1905.

JOHANNESBURG: ISSUE OF £2,500,000 STOCK.

THE London and Westminster Bank, Ltd., on behalf of the Municipality of Johannesburg, is offering for subscription the above amount of 4 per Cent. Inscribed Stock, 1934 (price of issue £99 per cent.), created by resolution of the Johannesburg Town Council on the 13th inst., to be applied as follows:—To the electric tramways and lighting scheme, £900,000; sanitary sewerage scheme, £280,000; storm water drainage, roads, and other works, £795,000; water supply, £325,000; and expropriation of land and improvement scheme, £200,000, making up the £2,500,000 required. The interest will be payable April 1 and October 1; interest on the instalments will be paid on October 1, 1905, by coupon (£1 5s. 3d. on each £100) attached to the scrip, and the principal will be repayable April 1, 1934. We may state that the revenue of the above Municipality for the financial year ended June 30, 1904, amounted to £619,836 9s. 10d., and the expenditure to £562,218 9s. 8d., the surplus thus being £57,618 0s. 2d.

DISEASE v. HEALTH.

Serious Results on Sanitary Progress of Governmental Tardiness and Red-Tape. Reforms Checked by Inspectors of the Local Government Board. Means by which Infection is Propagated. Modern Methods of Sewage Treatment, and the Impracticability of Land Treatment. Formation of River Boards throughout the Country Recommended.

[*By SAMUEL RIDEAL, D.Sc.Lond., F.I.C., Fellow of University College.*]

IN settlement of the principles affecting the public health, and in practical work for the prevention of disease, great progress has been made in recent years, particularly with regard to tubereulosis and the provision of sanatoria. It has been generally agreed that pulmonary tuberculosis should be made compulsorily a notifiable complaint, in view of its prevalence in Great Britain, and of the suffering, pauperism, and death it occasions, and a resolution was passed at the Glasgow Sanitary Congress in 1904 that the Local Government Board be memorialised to allow Local Health Authorities to take necessary steps.

Among the causes of this and other diseases have been recognised overcrowding, the faulty care of the young, and a want of precaution in the milk supply.

The Land Difficulty.

With respect to the first, large insanitary areas have been cleared in some eities, but the re-housing of the people thus displaced has been imperfectly accomplished by the erection of model dwellings and the eheapening transit to suburbs, where, however, according to experience, overcrowding in frequent cases again reeurs. The difficulty to municipalities is the cost of land, and legislation on the point is urgently needed to give facilities for these public purposes.

With regard to the care of the young, that infantile mortality remains very great in large cities is well known, and is exemplified by some figures given lately by the Medical Officer of Health for Liverpool. In a group of families, 98 out of 116 infants died before the age of one year. There is no doubt that unwholesome milk has been a serious origin of illness among young children, and in a less degree among adults, and an opinion has gathered that milk supplies should be controlled and supervised as they are in Denmark and some other countries—possibly with the provision of municipal sterilising stations and the delivery of a sterilised supply on the lines recommended at the Brussels Hygienic Congress last year. The regular medical inspection of school children is a measure that requires State adoption.

Dust and Tramps.

The eonstant dissemination of infectious diseases, among which small-pox holds a eonspicuous plaee, among tramps and the classes frequenting common lodging-houses and workhouse casual wards has attracted considerable attention, and has led to recommendations from Sanitary Societies that the Government should adopt measures to place vagrants under control and inspection by health authorities, if not to adopt a system of town-to-town registration, as in many foreign eountries. A similar plan should apply to certain classes of immigrants, especially aliens, on landing. It is felt that legislation, carefully framed, would not lead to oppression, and that it is urgently needed for the public safety. Dust, as inimieal to health, and a means by which infeetion may be propagated, has given rise to many suggestions for its reduction or suppression, and on main roads in several places remedies are being tried with some success. There has been great advance in houschold sanitation and construetion, but many glaring faults are still tolerated, partieularly in the new neighbourhoods now being created around all large towns.

Minister of Public Health.

A proposal has been made, and has been strongly supported in many quarters, that a Ministry of Publie Health should be established, with powers and funetions allied to those which are general abroad, but action has been retarded on account of political considerations.

The subject of water supply is a pressing one, and seems fairly within the scope of the present Royal Commission on Sewage Disposal; in fact, it has already dealt with many questions in which rivers and water sources are closely concerned.

The question involves a brief review of the circumstances under which it was appointed in 1898. At that time the subject of sewage purification had not been critically examined by any Commission since that on Rivers Pollution, appointed in 1868, whose final report in 1874 led to the passing of the Public Health Amendment Act in 1875 and the Rivers Pollution Act in 1876.

Unfortunately, however, the Local Government Board, in granting loans for schemes of sewage-disposal, has continued to adhere rigidly to the finding of the Commission of 1865, that the right way to dispose of town sewage is to apply it continuously to land. In this view the Board was practically supported by a Commission of inquiry into the Metropolitan sewage, which also advocated the final treatment on land; although the recommendation in this ease was never carried out, and the difficulty of providing a sufficient area was allowed to be a sufficient excuse.

Attitude of the L.G.B.

This attitude of the Local Government Board was well defined in August, 1893, by the then President, who, in reply to a question in the House of Commons, stated as follows:

"It is the invariable practice of the Local Government Board to decline to sanction a loan for any scheme of sewerage or sewage-disposal unless it provides that the sewage shall be purified by being passed through land before being discharged into a river or stream to which the Rivers Pollution Prevention Acts apply. They consider that the requirements of those Acts would be contravened unless the sewage is so purified.

"The Board are fully aware that by means of chemical and mechanical treatment very much may be done to aid in the purification of sewage, and they therefore approve of a very much less area of land being provided when the authority propose to adopt such treatment; but they are now of opinion that these means alone, without the passage of the sewage through land, are insufficient. Delay has, in some cases, been occasioned where sanctions to loans have been withheld pending arrangements being made for the acquisition of land."

Even at the present time one can say that the Loeal Government Board has not materially departed from this position, with the exception, perhaps, of reading "baeterial" for "mechanical" in the above quotation.

Notwithstanding the evidence brought forward by such important towns as Salford, Manchester, and Exeter, the difficulty in obtaining loans without the provision of land remains nearly as acute as it was twenty years ago, and it would appear that the prolongation of the labours of the present Commission is taken as a justification for this dead-lock.

Land Treatment "Impracticable."

Of eourse there can be no plaee where it is not possible to find land suitable for the purifieation of sewage, provided there is no limit to the length of outfall sewer, and to the height to whieh the sewage may be pumped, but the eost in numerous cases—and at the present time, in the opinion of many experts, in all eases—even when the outfall sewer is not long, and pumping has not to be resorted to, is much greater than by modern methods of bacterial treatment.

In 1901 the interim report of the Commission went to show that there was no land which was entirely useless, but that peat and stiff clay demanded such an area as to render land-treatment impracticable. In the same report the Commission found that there were ten artificial processes for which, with proper safeguards, the Local Government Board would be justified in modifying the rule as regards the application of sewage to land.

Yet, notwithstanding this finding of the Commission, as already mentioned, with few exceptions, the Local Government Board has not relaxed its requirements. One would have thought, considering the Royal Commission's terms of reference, which directed it to inquire as to "what method or methods of treating and disposing of sewage may properly be adopted, consistently with due regard for the requirements of the existing law, for the protection of public health, and for the economical and efficient discharge of the duties of local authorities," that the decision of the Commissioners in 1901 as to these ten alternative methods being available, with proper safeguards, would have caused the Local Government Board to have at once, without any modification of the existing law, given these new processes an equal chance with land treatment, and that during the last four years towns would have adopted one or other of these schemes without being burdened with the cost of acquiring useless and expensive land. Especially is this the case since the Commissioners reported in 1901 on this particular question, as they regarded it to be of urgent importance.

Serious Indictment.

I cannot help thinking that municipal progress has been unduly arrested by the inspectors of the Board, who have advised and reported contrary, in my opinion, to the meaning of the Commissioners, that land was a proper and necessary safeguard for the baeterial processes. In their terms of reference the Commissioners were directed to report if more than one method of treating sewage could be adopted, by what rules should each particular method be determined, and it is probably owing to the absence of any rules in this early report of the Commissioners that the difficulties to which I have alluded still exist.

It is, however, debatcable whether such rules would be conducive to progress in water purification. Certainly, in insisting on the provision of land, the rule of the Local Government Board has delayed the purifieation of our rivers, and has enormously increased the ratepayers' burden in those municipalities which have been forced to comply with the requirements.

One Rule.

Surely there is only one rule which can be applicable to methods of sewage disposal, and that is that the works when completed shall not create an aerial or aqueous nuisanee, so that an authority should be free from dangers of vexatious litigation whenever it has arrived at this ideal condition. For the supreme authority to forbid the expenditure of money on a scheme because, in its opinion, it is incomplete or partial, and does not conform to the rule of the amount of land per head of the population, or to the gallons per day per square yard of filtering material, must postpone the final solution of the problem until the rules for all kinds of sewage with all kinds of processes in all circumstances have been worked out and submitted to the supreme authority.

The Commissioners, by prolonging their labours and issuing their volumes, are showing the eomplexity of the subject, and the difficulty of fixing what rules for the efficient sewage disposal and treatment may be formulated. In my opinion, the problem on these lines must be an insoluble one, as it is obvious that no two towns are so similar in character in relation to the nature and volume of sewage or the population to be served, or other varying eireumstanees and requirements, that a particular method of treatment ean be defined by useful rules which will ensure the absenee of aerial and aqueous nuisanee.

The difficulties are enormously increased when it is further recollected that under any circumstances a loan granted by the Board upon an approved scheme does not confer on the local authority any assurance that this money so spent will ensure the object for which it is granted; so that we have at the present time a Local Government Board withholding the loan until certain rules and requirements are complied with; and at the same time giving no guarantee that on complying with such requirements the authority is safeguarded against injunctions under the existing Pollution Acts or damages for any other nuisances arising.

In many cases considerable progress could be made towards remedying defects in existing works, or in dealing with new areas, if a loan could be effected with the Local Government Board for either water supply or purification works designed by experts whose reputation would suffer in the event of such scheme proving unsatisfactory. The proof of the successful working or treatment carried out with a loan in this way should rest with the central authority, and be recorded by such impartial authority, so that it would be possible to ascertain the practical effect of new schemes or modifications of old schemes carried out by municipalities under such advice, which would thus be a guide as to what should be avoided and what should be imitated in the future.

There cannot be any doubt that enormous sums of money are wasted in experiments, owing to the fact that such experiments have to be carried out in an economical manner, even by the wealthiest communities unless money can be borrowed for the investigations.

Commission's Recommendations Awaited.

In the United States it is realised that money is well spent in this way, and the authority is allowed to complete its scheme according to the guiding of the experts after such experiments have been reported. Here, on the other hand, money is not, as a rule, available for experiments, and in cases such as Manchester and Leeds, where they have been carried out, the benefits accruing from the results so obtained have been lost to the authority through the hard and fast rules which have obtained in the past, and which I hope will not be perpetuated by the Royal Commission in concluding its labours.

The recommendations made by the Commission are sufficiently definite to have been a guide to legislation in the different sections dealt with in their successive volumes of reports, and, as by the terms of their appointment they were to sit continuously, there is no reason for waiting for the conclusion of their inquiry to put in force their carefully considered opinions.

New Central Authority.

Probably the most important decision of this Commission related to its mandate as to the creation of a new central authority for (1) the settlement of differences between manufacturers and local authorities, (2) the general protection of sources of water supply, (3) the collection of facts, and the scientific investigation of questions of general importance regarding the protection of water. This should be "a new department under the Local Government Board rather than an entirely separate department." As permanent officers, there would be an administrative head, a bacteriologist, a chemist, and an engineer, and a laboratory would be provided. It was recommended that Rivers Boards should be formed throughout the country, each to have jurisdiction over the whole of a watershed, and to be a first tribunal of appeal. Recommendations were made as to the functions of the central body, and on other details; the whole scheme being carefully argued and elaborated from the evidence, and the powers and limitations advised. When we consider that such a system has been long established, and has been found to work well, in other countries, as on the Continent and in America, it is fair to ask why the British Government is delaying its enactment.

MUNICIPAL MUTUAL INSURANCE.

A Wonderful Tale of How Municipal Authorities Have Fought a Dangerously Tyrannical Trust with its Own Weapons in the Interests of a Long-Suffering and Heavily-Plundered Public. After Less than Two Years' Work Seven and a Half Millions' Worth of Property is Insured. Headway Against Vested Interests and Illegal Commissions. Safeguards and Profits. Calumniators Apologise.

[FROM A CORRESPONDENT.]

No survey of the progress of this scheme would be complete without a summary of the methods used by the Tariff Trust, first to cover with ridicule, then to seriously criticise, and, as a last resort, to abuse with libellous calumnies those pioneers who have, without fee, reward, or commission, devoted themselves to this effort to curb the outrageous and arbitrary exactions of the most powerful, and best organized, trust or financial combination outside of America. Every municipalist knows the immense difficulty of getting municipal bodies to combine together for any considerable time in any new departure. The City Corporation very seldom sees eye to eye with the L.C.C., whilst the contrary tendencies of Glasgow and Edinburgh, Leeds and Bradford, Brighton and Hove, Plymouth and Devonport are historical. Hence, it needed some very great grievance to drive forty-eight authorites into embarking on a novel and difficult enterprise, and the Insurance Trust supplied this stimulus by providing that whenever a public body asked for quotations for insurances for property not having a special tariff-rate fixed, the rate to be quoted by every company was to be fixed by the Tariff Committee, although a similar course was not adopted in the case of business men asking for prices.

"Mere Bluff."

So unjustly did this operate, that one County Council was quoted by all tariff offices, as punishment for seeking competition, a rate three times greater than a tariff company had been receiving from it, though such company was quite ready and willing (but was not allowed) to retain the insurance at the old rate. One London borough was asked 10s. per cent. by three tariff offices for a destructor and electricity station, whilst a strong non-tariff office took it at 5s., and voluntarily reduced the rate after a year to 3s. 6d. The best answer to the stock argument that the tariff rates are fixed from actual experience to cover the fire-risk is to be found in the dividends paid by tariff companies. The Liverpool, London and Globe has for years paid 90 per cent.; the Sun Fire, 85 to 90; the Royal, 63½; the Law Union and Crown, 50; the Yorkshire, 45; and seven other companies over 25 per cent. out of a business which is a prime necessity of commerce. The cynical answer of the expert is that such profits arise out of interest on reserve funds—the excessive plunder of previous years. But this is mere bluff, for the Liverpool, London and Globe, in 1903, earned a trading surplus alone of 107 per cent. on its capital, whilst interest on its funds earned another 63 per cent., so that if all profits had been distributed a dividend of 170 per cent. could have been paid, which is better than a gold-mine, and, after paying 90 per cent., no less than £211,389 was carried to reserve. Likewise, the Sun and Commercial Union earned over 100 per cent. on its capital, apart from interest on reserves.

Again, the reserves are eloquent of the rapacity of the trust, for if the State company is safe with reserves of 63 per cent. of premium income (and who dare suggest that any but a municipal insurance company is not as safe as the Bank of England) what need has the Phœnix of a reserve of 99 per cent. of premium income, or the Sun with 180 per cent.? And when we find the percentage of the Alliance is 269, the Essex and Suffolk 426, and the Hand in Hand with a reserve equal to 1,048 per cent. of premium income, the Trust is in this dilemma: Either the companies with reserves less than 200 per cent. of premiums are unsafe, or those with a proportion of over 400 per cent. have an unnecessary surplus, indicating that some of the companies make more money than they have the courage to pay as divdends, lest policy-holders see too much, and so have to go on piling up monster reserves, as the Trust will not let them reduce their rates.

Attempts to Crush the Scheme.

But the Hand in Hand found a reserve of ten times the premium income so indefensible that it began giving bonuses and seven years' insurance for six years' premium, whereon the Trust cried a halt, and this fine office—the oldest in the world—has been promptly swallowed up by another tariff company, with all its good rate-reducing intentions nipped in the bud, on the extraordinary terms to policy-holding members of twenty-eight years free insurance, in addition to a large cash payment. Seeing that the average municipal rate charged by the tariff works out at 2s. per cent., whilst the losses for over twenty years on this property are less than 4d. per cent., municipalities were justified in trying to reduce this figure, and though the Trust at first poured ridicule upon the folly of such an amateurish effort, through the *Times* and other champions of this vested interest, it did not fail to sniff the danger of possible success, so that a powerful campaign was started to crush the Mutual scheme, and most of the London Borough Councils which at the first conference voted for it allowed themselves to be pulled by the leg from actually joining it.

Shoreditch Fire: Six Editors Apologise.

When the Shoreditch heavy fire loss occurred, an organized series of libellous calumnies was spread broadcast through the Press, the loss being put at £50,000 (whereas it was only £6,500, of which only one-twentieth, or £325, fell on the Mutual funds), and six editors had to apologize for stating the company was in difficulties, having no funds, and the ratepayers would have to pay, as had long been loudly prophesied would be the result from the first big loss, but the shameless, interested parties who stooped so low as to adopt this detestable plan of hitting below the belt could not be unearthed. They then protested that the company was a mere agency—as if underwriting were not the common practice of every tariff company—but this was untrue, as a large number of the smaller risks are carried wholly on the Mutual funds. They are again stooping to unworthy practices by personal attacks on the managing trustees' abilities and character, especially on the Chairman, who led a winning fight in the East of London on defaulting water companies, and is getting material for letting light in upon the mammoth insurance monopoly and its unwholesome caucus. All this tends to show that the Mutual is rapidly winning, and it is to be hoped that bodies like the London County Council, the London Water Board, and some more of the great provincial corporations will look closely into this scheme, and support it For every penny spent out of the rates on fire brigades is so much extra profit added to the dividends and reserves of the Insurance Trust, whose fire losses are thereby reduced, and though the London County Council gets a contribution of £35 per million insured in London, what are the country authorities doing in not getting a similar or better contribution towards fire prevention?

NOTES AND ANSWERS.

Further Elucidation of the Important Powers Under the Private Street Works Act. When a School Attendance Officer May Not Sit as an Urban District Councillor. Licensed Premises Used for Electioneering Purposes. The Law as to the Rating of Schools and School Buildings. Are Ratepayers Entitled to Inspect the Deeds of Lease of Land to a Municipal Corporation?

[BY A BARRISTER]

658.—ELECTIONS—Borough and District Councils—Meetings Held on Licensed Premises—Illegality.

If a meeting was held in a workman's club (where intoxicants are sold) to assist the candidature of a candidate for Parliament, city, urban or rural council, could he be unseated if successful?—"AJAX."

Section 16 of the Municipal Elections (Corrupt and Illegal Practices) Act, 1884, is applied by Sec. 48 of the Local Government Act, 1894, to elections under that Act, including those for urban and rural councils, subject to any adaption or exception made by the rules of the L.G.B. That Section (16) provides that licensed premises shall not be used for the purpose of promoting or procuring the election of a candidate at an election, either as a committee-room or for holding a meeting. This provision applies to municipal and urban district council elections, and would render the proceeding referred to by our correspondent an illegal practice if committed by the candidate, or with his knowledge or consent. This offence would be a ground for presenting a petition against such candidate's return. The same rule would have applied to the election of rural district councillors but for a special exception made by the L.G.B. in its Election Order of 1898, applicable to R.D.C. elections. We cannot enter into particulars here as to the Parliamentary elections, but may say that the corresponding provisions in the Act relating to these, while prohibiting the use of licensed premises generally for election purposes, contains an exception in favour of permanent political clubs, and does not prohibit the use of any such premises for holding meetings, as distinguished from their use as candidates' committee-rooms.

659.—RATING OF SCHOOLS USED FOR RELIGIOUS TEACHING.

There are certain Church schools in this district belonging to the Established Church, and it is believed by some that, though they are let for lectures and political meetings, there is no power to rate them, while the Dissenters' schools, used and let for similar purposes, are rateable. Would you kindly say if this is a correct view? Also, if the Dissenting schools committee made no charge, but accepted a douatiou to its building fund, would it gain exemption? or what course would be best to adopt to gain exemption from rating?—"NEMO."

Generally speaking, all schools and school buildings are rateable. An exception, however, has been made by the Voluntary Schools Act of 1897 in favour of "any land or buildings used exclusively or mainly for the purposes of the school-rooms, offices, or playground of a voluntary school, except to the extent of any profit derived by the managers of the school from the letting thereof." A voluntary school is defined as a public elementary day school not provided by a School Board. These are now, in most cases, the "non-provided" schools under the various local education authorities. Apparently, either of the schools mentioned by our correspondent (assuming they come within this definition) may be rated in respect of any profits derived, as in the instance referred to in the query, from lectures and political meetings. If, instead of accepting direct payment for these purposes, the school managers receive donations for their building fund, such donations would appear to be, in effect, a profit such as the Act contemplates, and may, therefore, properly be rated.

660.—FREE LIBRARY—How Best to Adopt Act.

This is a rural district council, and it is desired to get the Public Libraries Act adopted, and the yearly parish meeting will be held shortly. What would be the best course to adopt to bring the matter forward? Does the clerk to the district council make out the agenda of the meetiug, and can any parochial elector suggest and have placed on the agenda any business he wants brought forward? It has been suggested that by getting urban powers for the free library (*sic*) the question of bringing it before the parish meetiug would be avoided. Is this possible?—"NEMO."

Urban councils, borough councils, and, in rural parishes (that is, parishes in rural districts), the parish meetings are the authorities empowered to adopt the Public Libraries Act (see as to parishes, Sec. 7 of the Local Government Act, 1894). Rural district councils have no power to adopt the Act, nor can they be endowed in any case with urban powers to enable them to adopt the Act.

It will be a simple matter to bring the proposal before the annual or any other parish meeting. Usually, seven clear days' public notice must be given before any parish meeting is held, specifying the time and place of meeting, and the business to be transacted thereat, and signed by the chairman of the parish council or other conveners of the meeting. Where, as in the present case, the adoption of any of the adoptive Acts is contemplated, not less than fourteen days' notice must be given.

The chairman of the parish council, or any two parish councillors, or the chairman of the parish meeting, or any six parochial electors may, at any time, convene a meeting, due notice being given in all cases. The opinion of the meeting must be ascertained by a poll (L.G. Act, 1894, S. 7 [2]).

661.—SEWERING STREET — Liability of Frontagers under Agreement with Council.

The surveyor to the Urban District Council, of which I am a ratepayer, came to me, as well as other property owners, to see if we would sign an agreement to have the street sewered. In order to save expense, he arranged with another adjoining property owuer, to allow the sewer to go through his pipes for a certain proportionate payment by each owner. After they commenced to sewer, it was discovered that there was an old sewer belonging to the property. Now, I should like to know whether the council can claim the whole of the amount for sewering, and, after being assured before we signed the agreement, by the surveyor, that if there was an old sewer we should not have to pay. We only signed to pay for the £25 agreed on to go through the adjoining owner's sewer; at least, that is what we thought at the time. But the council is demanding the full amount, not only the £25, but the whole of the cost of sewering, because it says we agreed to it, although in ignorance.—"G. P."

Some more information seems necessary to enable us to deal with this case. Is the street referred to a private street? If so, the council can compel the frontagers to sewer it without any agreement being arrived at. If, however, the street is a public highway, vested in the council, there is no liability on the frontagers to sewer it. Under Sec. 15 of the Public Health Act, 1875, it is the duty of every local authority to keep in repair all sewers belonging to such authority, and to cause to be made such sewers as may be necessary for effectually draining the district. Further, the council is empowered by Section 16 of the same Act to carry any sewer into, through, or under any lands in the district after giving reasonable notice to the owner or occupier of the lands. No agreement with such owner or occupier is necessary, but, if damage be caused by the exercise of this power, full compensation must be made by the local authority (see Section 308 of the same Act). If these remarks do not meet the case, we shall be glad to hear further particulars from our correspondent as to the circumstances under which the agreement was entered into, and the nature of the street to be sewered (public or private).

652.—TENDERS INVITED BY LOCAL AUTHORITY—Must the Lowest Tender be Accepted?

We are inviting tenders by letter from several selected firms for work required to be carried out under plans and specifications supplied to each of them.

Provided that one of the tenders, "not being the lowest," is accepted, has the firm making the lowest tender any legal claim for out-of-pocket expenses?—"ENQUIRER."

The local authority merely invites tenders from certain firms, and does not bind itself to accept the lowest of such tenders, or, indeed, any tender of those invited. If dissatisfied, it can invite further tenders from other firms, until a satisfactory one has been received. A tender is merely the offer of a firm to execute certain work or supply certain goods or materials at a particular price. A binding contract is effected only when a tender has been accepted by the local authority. Our correspondent does not mention the particular authority which is inviting tenders. Presumably, it is a rural council. Urban authorities, in the case of contracts over £100 in amount, must invite public tenders. The same rule applies to guardians where the amount exceeds £50, and authorities must be careful not to limit the range of contractors where the law requires public tenders to be advertised for.

663.—HAS A RATEPAYER THE RIGHT TO INSPECT THE DEEDS GRANTING A LEASE OF LAND TO A CORPORATION?

I am a member of a ratepayers' association of this town, and for my information I wish to inspect certain leases granted by a land owner to the Corporation. I have been refused such inspection by the mayor and town clerk. Will you be good enough to say whether I have a legal right to inspect such leases, and under the authority of what Act or Acts of Parliament or other authority such right (if any) exists?—"ENQUIRER."

We know of no legal authority under which ratepayers are entitled to inspect the deeds of lease of land to a municipal corporation, or other deeds affecting property, with which it may be concerned. Possibly some of the information sought by our correspondent may be obtained by an inspection of the minutes of the corporation, or of one of its committees. Burgesses are entitled to inspect the minutes of proceedings of the council by virtue of Section 233 of the Municipal Corporations Act, 1883, and in the case of "Williams v. the Mayor of Manchester" (45 W.R. 412) it was held that this right extends to the minutes of all acts of committees submitted to the council. The minutes here referred to are those of the council acting as a municipal corporation.

664.—EDUCATION — What Authorities have Abolished School Fees?

Could you oblige me with some information with regard to the education authorities which, since the Act of 1902 came into operation, have abolished fees in elementary schools? A list of such authorities would be of much service in view of a proposal from the Chester City Council to rescind a resolution passed in December, 1903, deciding to abolish school fees as from April, 1905. The Education Committee has gone back upon its former recommendation, and now proposes that school fees should be continued. This is without doubt contrary to the spirit of the Act of 1902, and the prevailing practice amongst local authorities.—"Z. Y. X."

We regret not to be able to assist our correspondent in the matter. So far as we know, no list of education authorities which have abolished school fees has been pub-

lished. The information is no doubt chronicled in the archives of the Board of Education, and perhaps a letter might be addressed to that Department on the matter. We may mention that the London County Council, amongst others, has recently abolished these fees.

665.—**PRIVATE STREET WORKS ACT—Making-up Street Method of Enforcing Objection to Works by Frontager.**—The council of this urban district is about to make up a private street in the district, and has served the usual notices on the frontagers. Amongst other works included in the plans and specifications, provision is made for the renewal and relaying of a surface-drain. This work is considered unnecessary by the frontagers. How can objection to the work be raised and enforced? If objection is made, and the council, in spite of it, carry out the work, on whom will the cost of the work be a charge?—"Alpha."

During the month following the date of the first publication of the council's resolution approving the plans, specifications, &c., in accordance with Sec. 6 (3) of the Private Street Works Act, 1892, any owner of premises liable for the cost of the works may, by written notice served on the urban authority, object to the proposals of such authority on various grounds. Amongst others, he may object on the ground that the proposed works are unreasonable, or that the estimated expenses are excessive. The urban authority may, after the expiration of the month, apply to the justices to appoint a time for the hearing of objections. The justices are empowered to quash in whole or in part, or amend, the resolution, plans, &c. The final apportionment is made by the surveyor under Sec. 12 of the Act, after the works have been completed. Frontagers have the right to object to this in the same manner as before, on several grounds, including the ground that there has been an unreasonable departure from the specifications, plans, &c.—that is, as altered or amended by the justices; and it would seem that the justices have power to make any needful modification in the apportionment. If the council has carried out works such as the relaying of the surface drains, which have been objected to successfully before the justices, the expense of such works will have to be defrayed out of the general district rate. The council has a general power, under Sec. 15 of the Act, to contribute the whole or a portion of the expenses of any private street works, and may pay the same out of the general district fund and rate.

666.—**PRIVATE STREET WORKS—Comparison of Provisions as to these in Public Health Act, 1875, and the Private Street Works Act, 1892.**

The urban district council of which I am a member will have to consider at its next meeting a motion, given notice of by a member, to adopt the Private Street Works Act of 1892. I should be pleased if you will give me a summary of the powers of the Act:—

(1) Our surveyor informs me that for sanitary purposes, and even street improvement purposes, the Public Health Act of 1875 is more powerful from the council's standpoint.

(2) If this act is adopted I suppose chapels and churches whose premises are vested in trustees will be exempted from payment of apportionment of private street improvements made under the 150th section of the Public Health Act?—"Nero."

1. Generally speaking, the powers conferred on Urban Councils by the Private Street Works Act of 1892 are wider, and the provisions of the Act more convenient and equitable for all concerned than those of the corresponding sections of the Public Health Act, 1875, that is Sections 150, 151, and 152 Under the later Act, however, the frontagers concerned can in many cases more effectually raise objections to the works proposed by the Urban Council, or to the cost thereof. Under Section 150 of the Act of 1875, the Urban Sanitary Authority may require the owners or occupiers of premises fronting or adjoining a private street which has not been sewered, levelled, paved, etc., to execute the necessary works. Before giving notice of its requirements, the authority must prepare plans and an estimate of cost, and deposit the same for the inspection of interested parties. If the notice is not complied with, the authority may execute the works, and recover in a summary manner the expenses incurred from the owners in default, according to their frontage, and in such proportion as the surveyor settles, or, in case of dispute, in the proportion settled by arbitration. The expenses may, instead of being levied forthwith, be recovered over a period of years, as private improvement expenses.

Section 151 exempts from contributing as a frontager the "incumbent or minister of any church, chapel, or place appropriated to public religious worship, which is now by law exempt from rates for the relief of the poor." In such case the local authority is empowered, but not bound, to undertake the work from the expense of which the incumbent or minister is hereby exempted. Under Section 152 of the same Act, the local authority is empowered to declare a private street, when sewered, levelled, paved, etc., to the satisfaction of the urban authority, a public highway, whereupon it becomes a highway, repairable by the inhabitants at large, unless within one month from the authority giving notice of its intention objection is made by the proprietor, or a majority of the proprietors, of such street.

The Private Street Works Act of 1892 is too long to summarise here, but we proceed to set out briefly the effect of some of the principal sections which differ from the provisions above described.

The urban authority does not give the frontagers notice to execute the necessary works in a private street, but, without preliminaries, resolves to undertake them. Such resolution may refer to several streets, or may be limited to a part or parts of a street. The surveyor must then prepare plans and an estimate of cost, with a provisional apportionment of such cost, and these, when approved by the council, are required to be deposited for a certain period, during which objection on one or other of the grounds specified may be made by frontagers. The frontagers may thus object (and the objection is heard by the justices), that the proposed works are insufficient or unreasonable, or that the estimated expenses are excessive. Under the Act of 1875, justices have no jurisdiction to entertain objections of this kind. In the estimate of expenses under the later Act, a commission of 5 per cent. may be added to the estimated actual cost in respect of surveys, superintendence, and notices. It is doubtful whether such charges can be included in the expenses recoverable from the frontagers under the Act of 1875.

Another and a very important improvement on the provisions of the Public Health Act is effected by Section 10 of the Act of 1892. It is there provided that the urban authority, instead of apportioning the expenses according to frontage, may do so according to the greater or less degree of benefit to be derived by any premises from the proposed works; regard may also be had to the amount and value of any work already done by the owners or occupiers of any premises. Further, premises not liable as frontagers may be bound to contribute where they have access to the street to be made up through a court or passage, and will be benefited by the proposed works. The Act goes on to provide for a final apportionment of the expenses involved, and further objections may then be made where the actual expenses exceed the estimated cost by over 15 per cent., or where there has been an unreasonable departure from the specification, etc.

The Act of 1892 makes the expenses a charge upon the property included in the final apportionment, and provides also for their recovery summarily, or as a simple contract debt (within a period of six years). Under the Act of 1875, if the council omits to recover the expenses within six months after demand, the charge can only be enforced on the premises. Another important improvement on the Act of 1875 is contained in Section 15 of the later Act. Under that provision the council may contribute the whole or a portion of the expenses of any private street works. Section 19 enacts that the council may adopt a private street as a public highway when the "all or any" of the works mentioned in the Act have been executed. Thus a private street never dedicated to the public may be opened to public traffic against the will of the owners; and on the other hand, under Section 20 of the same Act the frontagers may compel the local authority to take over a private street which has been made up to the satisfaction of such authority, and to declare the same a public highway.

2. It has been held under Section 151 of the Act of 1875 that the trustees of a chapel which fronts a private street are liable, with other frontagers, to contribute to the cost of making up the street ("Hornsey Local Board v. Brewis," 55, J.P. 389.) In view of this decision, Section 16 of the Act of 1892 provides that when that Act has been adopted the *trustees*, as well as the incumbent or minister of any church or chapel which is exempt by law from rates for the relief of the poor, shall not be liable for expenditure on private street works under the Act, but that the proportion of expenses in respect of which an exemption is allowed shall be paid by the urban authority.

667.—**IS SCHOOL ATTENDANCE OFFICER DISQUALIFIED FOR SITTING AS URBAN DISTRICT COUNCILLOR?**

Can a school attendance officer under the new Education Act sit as an urban district councillor?—"Ajax."

If the Urban District Council is the local education authority, a school attendance officer, employed by its Education Committee, will be disqualified for being elected or sitting as a member of such council. He comes under the disqualifying provisions of Section 46 of the Local Government Act of 1894, inasmuch as he holds a paid office under the District Council. If, however, the County Council is the Local Education Authority (as will be the case if the population of the urban district is less than 20,000), then the officer referred to is not disqualified for sitting on the District Council.

668.—**URBAN COUNCIL ELECTION—Can Candidate Seek Election for Ward other than that in which he is Residing?**

Our urban council area is divided into two wards. Can a candidate run in either ward, or only in the ward in which he is residing?

It is provided by Section 23 (2) of the Local Government Act, 1894, that a person shall not be qualified to be elected or to be a councillor in an urban district unless he is a parochial elector of some parish within the district, or has, during the whole of the twelve months preceding the election, resided in the district. It follows, therefore, that a parochial elector whose qualification arises from residence in a particular ward of a district may seek election as a councillor for that or any other ward into which the district may be divided.

ABERYSTWYTH GAS PURCHASE.

THIS week Aberystwyth decided to take the necessary steps for purchasing the local company's gasworks. At a meeting of the Corporation it was explained that under an Act of the gas company, obtained in 1898, the Council obtained the powers to purchase the undertaking any time within a period of thirty years, which was a most unusual time allowance. The gas company had now applied to the Board of Trade for additional powers, and objection was at once taken by the Council on the ground that the standard price of gas was too high, and that the additional borrowing powers sought were wholly excessive. Efforts to arrive at an amicable arrangement had been futile. The Council was not acting in any hostile spirit to the company, as the shareholders would receive their due when the Corporation took their works over.

Official Advertisements.

MUNICIPALITY OF JOHANNESBURG 4 PER CENT. INSCRIBED STOCK, 1934.

ISSUE OF £2,500,000.

Price of Issue £99 per cent.

Interest payable 1st April and 1st October.

Interest on the instalments will be paid on 1st October, 1905, by Coupon (£1 5s. 3d. on each £100) attached to the Scrip.

A Cumulative Sinking Fund will be provided sufficient to redeem the Stock at maturity.

ABRIDGED PROSPECTUS.

THE LONDON AND WESTMINSTER BANK LIMITED offer for subscription the above amount of Stock, created by Resolution of the Johannesburg Town Council on the 13th March, 1905, and authorised under the provisions of the "Johannesburg Borrowing Powers Ordinance, 1903," and sanctioned by Minute of the Legislative Council of the Transvaal Colony dated the 1st March, 1905, to be applied as follows:—

To the Electric Tramways and Lighting Scheme ...	£900,000
Sanitary Sewerage Scheme	280,000
Storm Water Drainage, Roads and other Works.....	795,000
Water Supply	325,000
Expropriation of Land and Improvement Scheme	200,000
	£2,500,000

All Stock issued under the Ordinance abovenamed and interest thereon will be a first charge on the revenues and assets of the Municipality, and will be secured upon the whole of the Lands, Rents and Properties of the Municipality and all rates levied by the same.

The Stock will be inscribed in the Books of the "Johannesburg Municipal 4 per cent. Inscribed Stock, 1934," kept by the London and Westminster Bank Limited, and will be transferable without charge and free of stamp duty at that Bank, either by the Stockholders personally, or by their Attorneys. The interest, at the rate of 4 per cent. per annum, will be payable on behalf of the Municipality of Johannesburg at the London and Westminster Bank Limited, Lothbury, on the 1st April and the 1st October in each year, by Dividend Warrants, which, if desired, can be sent by post at the Stockholder's risk. The principal will be payable at the same Bank on the 1st April, 1934.

Stock Certificates to Bearer, of the denominations of £100, £500, and £1,000, with Coupons for the Half-yearly Dividends attached, will be obtainable in exchange for Inscribed Stock at the London and Westminster Bank Limited, Lothbury, on payment of the prescribed fees, and such Certificates can be re-inscribed as Stock at the will of the holder.

Applications on the form prescribed will be received at the London and Westminster Bank Limited, Lothbury, and must be for even hundreds of Stock, and be accompanied by a deposit of £5 per cent. on the nominal amount applied for.

The list will be closed on or before Saturday, the 18th March, 1905.

In case of partial allotment, the surplus of the amount paid as deposit will be appropriated towards the payment of the instalment due on allotment.

Payment will be required as follows, viz.:—

£5 per cent. on application.
19 per cent. on Monday, 27th March, 1905.
25 per cent. on Monday, 29th May, 1905.
25 per cent. on Monday, 26th June, 1905.
25 per cent. on Monday, 31st July, 1905.

£99

Payment may be made in full on the 27th March, 1905, or on any subsequent day, under discount at the rate of 2½ per cent. per annum.

In case of default in the payment of any instalment at its proper date the deposit and instalments previously paid will be liable to forfeiture.

Scrip certificates will be issued after payment of the amount due on allotment, and fully-paid Certificates will, after the 1st September, 1905, be convertible into Inscribed Stock on presentation at the London and Westminster Bank Limited, Lothbury. A Coupon for £1 5s. 3d. on each £100, being interest on the instalments, payable on the 1st October, 1905, will be attached to the Scrip.

Copies of the Proclamation constituting the Municipality of Johannesburg and the Borrowing Powers Ordinance can be seen at the London and Westminster Bank Limited, Lothbury, and Forms of Application can be obtained at that Bank, or at any of its Branches. The National Bank of South Africa Limited, London Wall, E.C., and of Messrs. R. Nivison & Co., 8, Finch Lane, London, E.C.

London and Westminster Bank Limited,
Lothbury, London, E.C.,
14th March, 1905.

METROPOLITAN BOROUGH OF GREENWICH.

APPOINTMENT OF OFFICE CLERK.

THE Council of the Metropolitan Borough of Greenwich is prepared to receive applications for the APPOINTMENT of a CLERK in the Public Health Department, at a salary of £100 per annum, rising by annual increments of £7 10s. 0d. to a maximum of £137 10s. 0d., subject to satisfactory service, the first of such increments to be payable as from June 24th, 1906.

The person to be appointed must be a competent shorthand, type-writing and correspondence clerk, and preference will be given to a person with experience in the work of a Public Health Department, and holding as evidence of his knowledge of general sanitation some certificate granted by a Sanitary or Public Health Institute.

The Clerk appointed shall hold office subject to a month's notice, and shall not, on retirement, be entitled to claim superannuation.

Applications must be in the handwriting of the applicants, on forms to be obtained from the undersigned, stating age and experience, together with copies of not more than three recent testimonials, and must be sealed up and endorsed, "Appointment of Office Clerk," and must be received here not later than five o'clock p.m., on Monday, 27th March inst.

Canvassing the members of the Council will be a disqualification.

FRANCIS ROBINSON,
Town Clerk.

Town Hall,
Greenwich Road,
Greenwich, S.E.,
16th March, 1905.

CITY OF BIRMINGHAM.

TRAMWAYS DEPARTMENT.

THE Tramways Committee of the City Council are prepared to receive Tenders for the supply, delivery, and erection of 200 Electric Tramway Cars.

A form of Tender, with Instructions, General Conditions, Specification and Drawings, can be obtained on application at my Office, on payment of £2, which will, after the Committee shall have come to a decision upon the tenders received, but not before, be returned to the Tenderer, provided he shall have sent in a bona-fide Tender.

Tenders must be enclosed in a sealed cover, addressed to the Chairman of the Tramways Committee, and endorsed in the left-hand corner, "Tender for Rolling Stock," and be delivered at the Council House, Birmingham, not later than 10 o'clock a.m. on the 4th day of April, 1905. No tender will afterwards be received.

The Committee do not bind themselves to accept the lowest or any Tender.

ALFRED BAKER,
General Manager.

254a, Corporation-street,
Birmingham.

BOROUGH OF EAST HAM.

THE East Ham Corporation invite tenders for the aftermentioned supplies, and for doing the following work for the period ending 31st of March, 1906:—

Glazed Stoneware Pipes (London make).
Glazed Stoneware Gully Fittings (London and Country make).
Portland Cement.
Greystone and Chalk Lime.
Stock and Other Bricks.
Coal and Coke.
Engineers' Sundries (Oils, Colours, Painters' Brushes, &c.).
Hand-Broken Granite.
Crushed Granite.
Broken Flints.
Granite Kerb.
Cast Ironwork, Gullies, &c.
Shovels, Brooms, Picks and Handles.
Disinfectants.
Horse Provender.
Oilskins for Workmen.
Hire of Horses and Carts for Scavenging, Dust Collection, &c.
Uniforms for Firemen, &c.
Sewer Ventilating Columns.
Paving Flags.

TO WINDOW CLEANERS, &c.

Cleaning of the Windows of the various Buildings belonging to the Corporation, including the Town Hall, Municipal Buildings and Schools.
Cleaning of Eaves, Gutters, &c., of ditto.

Particulars and form of tender may be obtained upon application at the office of the undersigned, or by forwarding an addressed envelope (foolscap size), duly stamped.

The person or persons whose tender is accepted will be required to pay to the whole of his or their workmen such rates of wages, and observe such hours of labour, as are recognised by the Master Builders' Association of London, and local trades' unions, to enter into a contract with a bond for the due performance of the contract, and also to supply the Corporation with a schedule of the rate of wages adopted by his or their firm.

Tenders to be sent in, addressed to "The Chairman, Town Hall, East Ham, E.," and endorsed according to the supply or work tendered for, not later than Saturday, the 25th of March, 1905.

The Corporation does not bind itself to accept the lowest or any tender.

By order.
C. E. WILSON,
Town Clerk.

Town Hall, East Ham, E.,
March 9, 1905.

In the Press.

Price 1s. 6d. Post free 1s. 10d.

THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.

IMPERIAL LONDON:
Its Problems,
Its People, and
Its Government.

See
THE LONDON MANUAL.
1s. 6d. By post, 4d. extra.

12, Salisbury Square, London, E.C

Official Advertisements.

CITY OF WESTMINSTER.

PAVING WORKS.

THE Westminster City Council invite Tenders for the Execution of Paving Works within their jurisdiction.

Forms of Tender, Schedule, Specification, and Conditions of Contract can be obtained on application at the Works Department, Westminster City Hall, Charing-cross-road, W.C., on and after the 14th inst., between the hours of 10 a.m. and 4 p.m. (Saturdays 10 a.m. and 1 p.m.), on a deposit of £5 being made. The deposit will be returned to contractors who submit bona-fide tenders.

The Contractors will be bound by the Contract, in the case of all workmen employed by them, to pay wages not less, and to observe hours of labour not greater, than the rates and hours recognised by the Association of Employers and Employees, and in practice obtained in the district where the work is to be executed.

The contract deeds will be prepared at the expense of the Council, and contractors will be required, together with two sureties, to enter into bonds for the due fulfilment of their contracts, or, in the alternative, to agree to the retention by the Council during the period mentioned in the form of Tender of certain moneys. Contractors are prohibited from directly or indirectly canvassing members or officials of the Council in support of their tenders, and the tender of any contractor who does so canvass will be rejected.

Each Tender, on the official Form supplied, is to be delivered at the City Hall, in a sealed cover, addressed to the Town Clerk, Westminster City Hall, Charing-cross-road, W.C., and marked "Tender for Paving Works." No Tender will be received after 4 p.m. on Thursday, the 23rd March, 1905.

The Council do not bind themselves to accept the lowest or any Tender.

JOHN HUNT,
Town Clerk.

Westminster City Hall,
Charing-cross-road, W.C.,
10th March, 1905.

BOROUGH OF BROMLEY.

CHIEF OFFICER OF FIRE BRIGADE.

THE Town Council of the above Borough invite applications for the post of CHIEF OFFICER of the Borough Fire Brigade.

Salary £117 per annum, with quarters at Fire Station, coal, gas, and uniform.

Applicants must not be more than 45 years of age, and must have either been a Station Officer or Sub-Officer of a London Fire Station.

Applications in the candidates' own handwriting, stating age and previous service, with copies of not more than three recent Testimonials, to be sent to me, on or before Saturday, the 25th March instant.

Canvassing will be considered a disqualification.

FRED. H. NORMAN,
Town Clerk.

Municipal Offices,
Bromley, Kent,
10th March, 1905.

ASSISTANT MATRON.

ASSISTANT Matron wanted for the Morley Convalescent Home, St. Margarets at Cliffe, near Dover. Salary £30, with board, lodging, &c. Applications, with three copies of recent Testimonials, and marked outside, "Assistant Matron," to W. Wood, Secretary, 13 & 14, King-street, Cheapside, London, E.C., on or before Wednesday, 22nd March, 1905.

ACCOUNTANTS (Unattached) and Clerks with thorough knowledge of Bookkeeping, both in London and Provinces, and whether in practice or employment, are invited to send for the Circular of the London Association of Accountants, Ltd., which Association offers many valuable privileges to those desirous of success in their profession. 21, Balfour House, Finsbury-pavement, London, E.C.

Official Advertisements.

METROPOLITAN BOROUGH OF STEPNEY.

PRINTING AND BOOKBINDING. STATIONERY.

THE Council of the Metropolitan Borough of Stepney hereby invite Tenders for the execution of Printing and Bookbinding and the supply of Stationery for a period of three years from the 1st day of April next.

Persons or firms tendering must submit the names and addresses of two substantial persons who are willing to be jointly and severally bound for the due and proper performance of the contracts.

During the existence of the contracts, the trade union rate of wages as agreed to by the employers' associations and trade unions, and as in practice obtain, must be paid, and no assigning or underletting of any part of such contracts will be permitted without the written consent of the Council previously obtained.

Forms of Tender, Conditions, Contract and Schedule may be obtained upon application to the undersigned between the hours of Ten a.m. and Twelve noon, upon deposit of a Five Pound Bank of England note for each form of tender, &c., issued.

The deposit fees will be returned upon receipt of a bona-fide tender with the other documents issued.

Tenders must be endorsed "Tender for Printing and Bookbinding," or "Tender for Stationery," as the case may be, and sent to the undersigned on or before noon on Wednesday, the 22nd day of March, 1905.

The Council will not be bound to accept the lowest or any tender.

By order.
GEO. W. CLARKE,
Town Clerk.

Municipal Offices (temporary),
15, Great Alie-street,
Whitechapel, E.
6th March, 1905.

"THE SCHOOL MANAGER."

A WEEKLY NEWSPAPER
FOR
EDUCATIONAL ADMINISTRATORS

ONE PENNY WEEKLY.

Indispensable to Members of Municipal and County Councils and especially to Members of Educational Committees.

SUPPLIED BY ANY NEWSAGENT.

"I consider it a marvellous educational pennyworth that ought to be in the hands of every educational authority in the country."—Chairman of a Tyneside Education Committee.

"I am doing all I can to push THE SCHOOL MANAGER, which has more real, live news in it than any other paper."—Secretary of a County Borough Education Committee.

5 & 6, Johnson's Court, Fleet Street,
LONDON, E.C.

AGENTS REQUIRED in unrepresented districts for the Imperial Accident, Live Stock, and General Insurance Co., Ltd. Estd. 1878. Departments :— Personal Accidents. Carriage and Drivers' Accidents. Horse and Cattle Insurance. Claims paid £300,000. Address Mr. B. S. Essex, Manager, 17, Pall Mall East, London, S.W.

WARD & MACONIE,

15, HANOVER STREET, LONDON, W.

Municipal Robe Makers and Court Tailors.

PRICE LIST ON APPLICATION.

A CHORUS
OF
APPRECIATION
OF THE NEW ISSUE
OF THE
Municipal Year Book,
1905.
NEARLY 700 PAGES.

Price 3s. 6d. By Post 3s. 11d.

John Burns, L.C.C., M.P., in the *Daily Chronicle*: "From the first to the last page we have a civic compendium which evokes respect, compels appreciation, and should receive the consideration of all students, inquirers, Labour leaders, and representatives who wish to have faith through knowledge, and justification for their service, in works achieved."

A Local Government Official: "The volume contains all that could be desired as a reference to municipal affairs."

A Town Clerk: "Your exceedingly valuable YEAR BOOK."

The Times: "A valuable publication. . . . A complete analysis of municipal activity throughout the country."

The Spectator: "This volume contains a vast amount of information about the management of municipal affairs in all the cities throughout the United Kingdom."

Pall Mall Gazette: "It would be hard to mention a subject of public activity and inquiry or a borough of note not dealt with in this volume of six hundred pages of veracity for three-and-six."

Globe: "The MUNICIPAL YEAR BOOK has grown into a volume as portly as it is unquestionably valuable."

Daily Mail: "It is a wonderful volume of facts and figures of the greatest possible interest, and quite indispensable to all who would be familiar with municipal development all over the kingdom."

Scotsman: "Each new edition increases both its size and its utility."

Aberdeen Free Press: "It is a carefully compiled work of reference, and indispensable to students of the enterprises and finance of British municipalities."

Western Morning News: "No municipal office is completely equipped without a copy of this useful work."

Engineering: "Indispensable to all interested in social politics."

Glasgow Herald: "The plan of the book is excellent, and we need only indicate that its scope embraces all the features of local government in the United Kingdom."

Electrical Times and Lightning: "An accurate and a comprehensive municipal directory, well worthy of its position as a standard work of reference."

The CITIZEN'S WHAT'S WHAT.

London: EDWARD LLOYD, Limited,
12, Salisbury Square, E.C.

TO SUBSCRIBERS.

REVISED SUBSCRIPTION RATES for the New and Enlarged Series of the "Municipal Journal" (commenced 3rd March).

FOR THE UNITED KINGDOM.
Post free.

Three Months	2s. 5d.
Six Months	4s. 9d.
Twelve Months	9s. 6d.

ABROAD.

Six Months	6s. 6d.
Twelve Months	13s. 0d.

Cheques and Postal Orders to be made payable to EDWARD LLOYD, Limited, 12, Salisbury-square, London, E.C., and crossed London and "Westminster Bank."

TO MUNICIPAL AUTHORITIES.

First-class Orchestras, Military Bands, and Concert Parties provided *at minimum rates* for every kind of function, or for Season.

J. HERBERT JAY,
10 & 11, Jermyn Street, Piccadilly.
Telephone—6534 Gerrard.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment,
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

Bonds are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds Approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary, SHIRLEY RUSSELL.

"I firmly believe that if the children were well fed our workhouses, gaols, and asylums would soon be empty."—SIR JOHN GORST, M.P.

PLASMON COCOA.

Equals in nutriment ½lb. of Beef or 10 Cups of ordinary Cocoa, and is absolutely free from chemicals.

Aids Digestion. Braces the Nerves. Invigorates the System.

PLASMON COCOA

In tins 5d., 9d., 1·4, and 2·6.

Contractors to H.M. Government and the Metropolitan Asylums Board.

INFANTILE MORTALITY

AND

INFANTS' MILK DEPOTS

BY

G. F. McCLEARY, M.D.,

Medical Officer of Health of the Metropolitan Borough of Battersea.

Crown 8vo. cloth, with 27 full-page Plates, **6s.** net.

LONDON:

P. S. KING & SON,

ORCHARD HOUSE, WESTMINSTER.

The Cream of Cocoas.

EPPS'S

Contains all the nutriment

COCOA

of the Choicest Nibs.

MUNICIPAL JOURNAL

FRIDAY, MARCH 17, 1905.

NOTES AND COMMENTS.

The Murder Out.

AT last the murder is out. We have before us in general terms the provisions of a "Proposed Bill for Restricting Municipal Borrowings." What the Government and its expert advisers have failed to accomplish, Mr. J. H. Worrall, A.C.I.S., the "managing director" of the London Mercantile Chamber, has succeeded, to his own satisfaction at any rate, in performing. Many people have not yet heard of the London Mercantile Chamber, of the persons who compose it, and what its objects are; but that need not matter. The Bill for restricting municipal borrowings is delightfully simple. All that has to be done is to refuse to allow local authorities to spend money beyond a certain limit. If roads need making, let them wait; if the population of a district is in imminent danger of being carried off by fever arising from defective drainage, let the remedy be postponed until some more convenient season; if the children need educating, let the process take place several years hence, when the Council has paid off some of its debts, and is in a position to start afresh. The Money Market would thereby be "steadied," and private speculators would be able to borrow money at a cheaper rate—a condition of affairs that would doubtless be of considerable advantage to the members of the London Mercantile Chamber, Limited, assuming, of course, that members exist. Lest we are accused of misrepresenting the objects of the "proposed Bill," we reproduce them as described by the draughtsman:—

> Our proposal is that a *pro-rata* scale of amounts which a borough, district, or county council should be permitted to borrow in one year, should be tabulated by Act of Parliament—these amounts to be fixed according to the rateable value of a district. By such an *ad valorem* arrangement, progressive districts would not be allowed to run faster than the increase of local property and population would permit, and the rates would, in this way, be confined to a more reasonable compass. The limit of borrowing would be kept below a given level, so that the rate should not exceed a certain amount in the £ per head of the taxable inhabitants.

Note the delightful confusion existing in the writer's mind concerning the association of high borrowings with rates. He assumes that if money is borrowed the rates must necessarily increase, ignoring a fact that is notorious to even the most casual student of municipal finance—that a very large proportion of the money borrowed does not go upon the rates at all, but is invested in industrial enterprises which actually relieve the rates. In towns with high borrowings the rates are, as a rule, lower than those in towns with low borrowings, for the simple reason that the balance is invested in enterprises such as tramways, gas, water, and electricity undertakings, which produce profits that relieve the rates, on whose security the money is borrowed. The ratepayers thus secure a double benefit; their tramway fares are lower than they would be under company management, and their water, gas, and electricity are cheaper, whilst all these things produce profits that relieve the rates. Mr. Worrall may probably see that this little defect in his reasoning destroys the "principle" on which his Bill is based.

More Reforms.

THIS circular of the managing director of the London Mercantile Chamber, Limited, is so absorbingly interesting that we may be pardoned for examining it a little more closely. The limitation of borrowings according to the rateable value of a district is not the only proposal which, according to a covering letter, is to be urged upon the Government. The rateable value is to be kept down! There should never be adopted such "a mean expedient" as that of "pushing up the shop assessment to increase the rateable value." Note the word "shop." Only "shop assessments" should be kept down; there is no objection, apparently, to the assessments of the ordinary householders going up. "Additional funds should not be extracted from the trading community of a district by reassessment." Note again how carefully the interests of the "trading community" are safeguarded in these statesmanlike proposals. The London Mercantile Chamber evidently believes in the principle of "looking after its friends." The local authority is to be allowed to develop a district up to a point, and the tradesmen are to be allowed to make their profits out of that development, but the property by owning which they are enabled to do so is to remain at its "undeveloped" assessment, while

that of the householders who trade with the tradesmen is to be increased in order to provide the money for the development. How easy and satisfactory—for the tradesman! And having got the "trading community's" assessments down, and everybody else's up, the borrowing is to be limited so that the profits from tramways, electricity, and other enterprises can be absorbed by the "tradesmen." Mr. Worrall says he wants a "fanatic" to take this question up. "There is now abundant material at the disposal of any energetic man who sets himself to inaugurate a campaign against municipal expenditure." The vacancy should not be difficult to fill from the officials of the London Mercantile Chamber. For pure fanaticism this Bill for restricting municipal borrowings would be hard to beat. It is the apotheosis of the tradesman.

Trading at Harrogate.

IT will be a surprise to the London Mercantile Chamber to learn that even losses on this terrible "municipal trading" are sometimes regarded by towns with equanimity. At Harrogate, for instance, the local *Times* is quite gleeful about it, and the facts in connection with the matter incidentally illustrate the absurdity of applying the limitation of borrowing proposals in the "Bill" we have just discussed. Taking all the undertakings together, the total loss on last year's "trading" was £2,933 7s. 4d. This is the comment of the *Harrogate Times*:—

> We put it to even the bitterest opponent of municipal trading: Is this sum a big loss when the amount of capital involved is considered, and when the enormous advantages to the town are taken into account? Under the circumstances, we say this loss of under £3,000 is paltry. Look at the advantages we enjoy as a health resort in having the Baths, Pump Room, Wells, Kursaal, and the water, &c., &c., under our immediate care!

Even the "trading community" of Harrogate cannot deny that were it not for these enterprises [of [the Corporation the town's prosperity would be at a much lower point that is now the case. Judging the result of the "trading," however, on the same lines as company enterprise, it shows an enormous financial profit. The Corporation is gradually wiping out the debts that hang over these undertakings. Last year's principal and interest on the baths, pump-room and wells, &c., amounted to £8,920; on the market, £403; on the Kursaal, £4,000; on the electric light works, £6,900; and on the waterworks, £19,000, making a total of £39,223! Had a private company been running these various works, this is the amount—less the loss previously mentioned—it would have been able to show as profit. Deducting the loss from the capital repayments, there is thus a sum of no less than £36,290 of "borrowings" which do not involve a single farthing of the rates. How, then, could the London Mercantile Chamber's proposal to restrict this borrowing reduce the rates?

The Rates of London.

THE London County Council, in common with many other municipal bodies, has been in an economical frame of mind lately, a condition that will bear fruit in next year's demand-note. On the Council's general services a decreased rate of three farthings in the £ is announced, which would have meant a proportionate reduction in the levy to be made upon the ratepayer had it not been for the increased expenditure which the administration of the Education Act has entailed. The figures are easily stated:—

Education increase	= 2d.
L.C.C. saving...	= ¾d.
Nett increase	1¼d.

The combined rate will be 2s. 11d. in the £. Whilst not for a moment questioning the statement that the new Education Act necessarily increased the expenditure upon education administration—you cannot maintain the Voluntary schools as well as the Board Schools without paying for the luxury—we suggest that the Education Committee should accept the invitation of the Finance Committee, so ably controlled by Lord Welby, and introduce a little system into its finance. At present it is bringing up expensive schemes one after another without giving the Council any adequate idea as to the outlay the proposals as a whole are to involve. This is not business, and the ratepayers have a right to know what the extent of their liability from year to year is likely to be.

Cardiff and Small Loans.

THE Cardiff Corporation a few weeks ago authorised the Finance Committee to make inquiries respecting the results obtained in towns which had adopted the small loans system. Instead of making independent investigations, as it ought to have done, the Finance Committee took the extraordinary course this week of recommending the adoption of the Bury Borough Treasurer's report on the question—a report which we pointed out at the time drew conclusions that were entirely unjustified by the evidence upon which they were supposed to be based. Councillor Chappell, who was responsible for the original reference to the Cardiff Committee, warmly protested against the latter's action, and he was supported by the Mayor, with the result that the recommendation was referred back to the committee. The committee has now the opportunity, which we hope it will not fail to take advantage of, of making a really impartial investigation into the small loans system. The more we study the Bury report, the more we are convinced that its conclusions are unwarranted by the available evidence.

The Municipality and the Country.

MR. C. L. DUKE, the chairman of the Plymouth Finance Committee, made some exceedingly pertinent observations on the present municipal position in a speech he delivered in presenting the estimates at a meeting of the Corporation this week. Mr. Duke has previously shown how thorough is his grasp of municipal questions, and we suggest that all finance chairmen should follow his example, and on "estimates day" tell the ratepayers a few elementary facts concerning not only their own immediately local position, but also the position of the municipal movement throughout the country. In this way many of the misrepresentations of the opponents of municipal enterprise could be authoritatively exposed. As one who knows the facts, Mr. Duke is not impressed by the allegations of municipal recklessness:—

> The allegation was made against them of having spent a very large sum of money, and in that way had curtailed and cramped the resources of the country. In his judgment it could be proved that was not so. It was true that in 1904 the debts of the municipalities had accumulated to the vast sum of £440,000,000. But it was equally true that their assets had increased by something like a similar amount.

This statement is statistically provable by the return on indebtedness, issued last year, in which it is demonstrated that, exclnding any goodwill consideration whatever, the assets of municipal corporations largely exceed their indebtedness. As Mr. Duke also pointed out, finance is not the only asset. The health and comfort of the people are something to set on the credit side as well.

Some Striking Facts.

THE Plymouth finance chairman has been looking into this aspect of the matter, and has discovered that the Imperial Government has done practically nothing to improve the sanitation of the land, and the whole of the burden has been thrust upon the great municipalities. The latter have widened the streets, provided parks for all comers, established electric and tramway undertakings, and improved the housing of the working classes, with the result that the death-rate of the country has been reduced by 4½ persons per thousand. The average death-rate of 31 of the largest towns, and therefore the most congested, in 1890, with a total population of 10,521,493, was 21·9 per thousand. By the enterprise of the municipalities and urban district councils the death-rate for 1902 has been reduced to an average of 17·4 per thousand, or, if we take the population of those thirty-one large towns at 12 520,532, there are to-day 56,340 lives being saved each year. The mortality returns issued by the Registrar-General give the average death-rate of England and Wales from 1884 to 1893 as 19·1, and in the ensuing ten years it was 17·2. Taking the town districts, in which the sanitation has been brought up to date, the average mortality rate in the first ten years mentioned was 20·1, but in the succeeding period it dropped to 17·4, and in the past year it was 16·9. These are results which the municipalities are entitled to set against the charges of extravagance and recklessness that are being continually levelled against them.

THE PAUPER CHILD.*

Searchlight on the Existing Method of Rearing State Children. Evils of Workhouse Influence. Reasons Why Barrack Schools and Village Communities are Not Desirable. Every System Good in So Far as it Permits Each Being Considered as an Individual Reared in a Family or a Home which Resembles the Normal Family.

[*By Mrs. BARNETT, Hon. Secretary of the State Children's Association.*]

IN England and Wales there are 63,955 pauper children, and there are eleven ways in which they may be reared: (1) workhouses, (2) barrack schools, (3) block buildings, (4) village communities, (5) grouped cottage homes, (6) boarding-out in workmen's families, (7) small certified homes, (8) scattered homes, (9) emigration to Canada, (10) training ships, (11) trade training schools.

Now, briefly, the State Children's Association counts those systems good which permit of each child being considered as an individual, reared in a family or a home which resembles the normal family, or in those surroundings where its habits, tastes, characteristics, and antecedents can be studied with a view to their development or their correction.

I might treat this subject in many ways. I might arouse your sympathy by sad tales, or awake your pity by pictures of poverty, but Poor Law is a subject needing our best thought and so you will pardon me if I try to place before you this many-sided subject, not in a picturesque way, but in a concentrated form.

Children in Workhouses.

Children over three years of age should never live in the workhouse, and no child should ever be in the care of pauper inmates. Here are some reasons:—

1. Because in the workhouses children often have to mix with the adult paupers, from whom they may learn habits and hear conversations which degrade them.
2. Because in most workhouses there is little or no provision for the children's training and recreation, as apart from school teaching.
3. Because the children get to look upon the workhouse as their home, and feel neither hesitation nor shame in returning to it, either at times of difficulty or as continued residents in after years
4. Because in many cases the children are under the care of pauper inmates. This is undesirable under any circumstances, but when to quote from the report of a Poor Law inspector, "there were on my last visit no less than forty-six children (including twelve infants) without a paid caretaker, the boys being under the charge of a female inmate with two illegitimate children, and the girls and infants under the charge of one with three illegitimate children"—it is "a discreditable arrangement, likely to affect injuriously the future of children for whom the guardians are responsible."

To every child-lover these reasons are adequate, and more than adequate, and yet in the last return obtained by a Member of Parliament, who is on the Council of the State Children's Association, we learn that 21,308 of our State children are still within the walls of workhouses and infirmaries. The Local Government Board has long been pledged to reform this state of things; and in 1900 it issued a circular to the 630 Boards of Guardians advising that all children should be removed from the workhouses. But 21,308 are still there.

Barrack Schools.

This term has been given to those large institutions where many children are congregated together. All who have to do with them must recognise the laudable efforts which have been made, and are being made, by the guardians and officials to minimise the evils of the system, but as a system it is unnatural, and should be abolished, and for the following reasons:—

1. Because in large institutions the standard of health is lower than is that of children living under ordinary conditions, and they therefore more easily contract diseases, such as ophthalmia and ringworm, consequent on low vitality.
2. Because the growth and development of the children is frequently retarded by the monotony and unnaturalness of their lives.
3. Because it is impossible for the officials to know and individually care for hundreds of children.
4. Because one of the effects of aggregation is to make children dull, sullen, and mechanical.
5. Because barrack schools are more expensive than boarding out, or scattered homes, or small certified homes, each child in a barrack school costing on an average from £28 to £30 per annum.
6. Because the necessary use in large schools of machinery for washing and cooking encourages habits of dependence, and leaves the children ignorant of ordinary domestic appliances.
7. Because the complete organisation essential where many are congregated leaves the initiation and resource of the children untrained; they are thus unfitted to cope with the daily difficulties of life.

Deplorable Evils.

Ah, but I hear you say, "Why does Mrs. Barnett flog a dead horse? We all know that barrack schools are discredited and doomed." Yes! I often read that in the newspapers, but here are some facts:—12,979 children are still in barrack schools; £48,000 was spent in five years in the metropolitan area in enlarging and improving them. In the South Metropolitan district, after incredible delay, the large barrack schools at Sutton were dissolved, but in many instances the undesirable aggregation of children in these schools has not yet been checked. For a time the numbers for which the schools were certified were decreased, but the number of rate-supported children having recently increased, the schools are again overcrowded. Yet over and over again instances of the unhealthiness of this gathering together of young folk in large numbers occurs. Epidemics are of frequent occurrence. In 1902 at the Lambeth Schools (Norwood) no less than thirty-six children per 1,000 (twice the death-rate of the borough) died in an epidemic of measles. At the Farnham District Schools (Hartley-Wintney), so grave were the constant outbreaks of disease that some of the managers desired to dissolve the district, and a Committee advised that some of the children should be dealt with in small groups and by individual methods. At Ipswich, in St. John's Home, an outbreak of ringworm defied medical treatment, so that the children affected had to be "boarded out" as a means of eradicating the scourge. At another barrack school, certified for 240 children, it was found on inquiry in 1902 that only 84 were free from disease.

It was at the Hanwell Barrack Schools that a medical report, issued in February, 1902, showed that 520 out of 1,000 children could not pass the whisper test for hearing, that 335 were, or had been, the subjects of discharge from one or both ears; that 88 of them went in danger of their lives from chronic suppuration, and that 434 children out of the 1,000 had adenoids. The examination, of which the above are the results, was undertaken by Mr. Arthur Cheatle at his own request (for purposes of scientific investigation), and yet, after receiving the report, the authorities proposed to increase the number of children aggregated in this school where, owing to the already large numbers, and consequent lack of individual attention, it was possible for 88 children to be in danger of death until rescued by the observation of an outsider.

I could tell you other examples of the evils of barrack schools—evils which do not touch only the physical health, but what is far more important—the mental and moral well-being of the children. I yield to none in the gratitude with which I recognise the improvements made in the schools since the issue of the report of the Poor Law Schools Departmental Committee, but the system is wrong, and I avow it fearlessly, supported by inspectors, educationalists, and philanthropists. By the light of a long and painful experience, not only of our country, but of other nations, it has been shown that no administration can make a bad system into a good one.

Village Communities.

Village communities is the name given to that system of building and grouping together blocks and villas for the reception of Poor Law children. These artificial villages are usually placed in the country, and, being supplied by contractors, consist only of dwelling-houses and a hospital and a school building.

The reasons why no more village communities should be built are:—

1. Because the life in these villages, though more physically healthy than in barrack schools, is still monotonous and unnatural, the children being maintained as a class apart, and knowing little or nothing of the outer world.
2. Because the necessarily artificial character of the life within the ring-fence seriously detracts from the children's self-reliance and ability to contend with and overcome the temptations of life as it is.
3. Because from these institutions, which are semi-conventual—the boys and girls being separate—the children, when they reach a wage-earning age, enter an unknown world at a critical and difficult time in their lives, quite unprepared for its dangers and hardships.
4. Because the large and handsome buildings, with their swimming-baths, gymnasiums, and electric lights, attract idle parents, and make them think it desirable to have their children maintained in them; that is one reason why village communities are so frequently over full.
5. Because this system is very costly, and imposes a heavy burden on ratepayers of this and succeeding generations. No less than £449,391 has been spent on the building of nine of these institutions. The Hornchurch Village cost £190 per bed, and the Greenwich community at Sidcup £280 per bed to build. The Salford Board spent £68,000 for 288 children; and the Bermondsey Board £320 per bed (at Shirley), and then added over £190 on pictures for the rooms.
6. Because the expense of rearing the children in these villages is very high. At Stifford (Stepney) it was for the half-year ending Lady-day, 1903, 23s. a week, and though this is unusually dear, the cost in metropolitan villages rarely sinks below 15s. or 16s. a week for each child.
7. Because when once a village is built it is impossible to get rid of it, and though the circumstances of the union may undergo radical changes, and the number of children chargeable to it greatly decrease, the guardians are unable to free themselves, or the ratepayers, from their burden. Who would hire a house in a pauper village? And yet with all these disadvantages this system is strangely attractive to guardians.

It is a pity, for many ratepayers are poor, and there are other ways of rearing State dependent children which are both cheaper and better.

First among the improved methods of treatment we must place Boarding Out, by which is meant the placing of a child in a

* From a paper by Mrs. Barnett, of Toynbee Hall, the Parent and the Hon. Secretary of the State Children's Association.

workman's home, the State paying 4s. a week, and clothes, school, and doctor allowances.

The boarding out system, both within and without the Union, should be extended. The reasons for this course are:—

1. Because this system offers the nearest approach to ordinary family life, for when boarded out a child lives naturally in the midst of a family and in a home.
2. Because the children do not feel the stigma of pauperism, as they mix with the village children, and go to the same school and places of worship as their neighbours.
3. Because the friendships with their foster-parents and families often last all their lives, and so when they go out to work on their own account they have some friends who are interested in their careers, and to whom they can go for holidays or when out of health.
4. Because the Voluntary Committee of ladies and gentlemen resident in the neighbourhood, who have the oversight of the children, take a kind and personal interest in their welfare, help to place them out when they are of an age to earn their own living, and keep in touch with them for many years. This individual interest is of especial value to orphan and deserted children.
5. Because the cost of maintaining and educating a child under the boarding-out system is £13 a year, or 5s. a week—less than half the average cost of children in barrack schools or village communities, which have to be built at enormous expense for their reception.
6. Because under the boarding out system no heavy debts for the provision of buildings are incurred for a future generation to pay, and no vested interests are created involving compensation or superannuation of officials.

Yet, in spite of these self-evident advantages, only 8,372 children are boarded out in our country, or under 8 per cent., whereas in Switzerland it is 72 per cent., in Scotland 84 per cent., and in Russia about 90 per cent. are so dealt with, while France and Queensland board out all their children, and Germany all its dependent girls.

"Why," I hope you will ask, "is the system used so much more in other countries than it is in ours?" The reply is complicated. I will quote Lord Crewe, the S.C.A. chairman. He writes:—

"Our Association has lately obtained returns from the Boarding-out Committees of England, from which we learn (from those possessing intimate knowledge of the work and of the cottagers in their districts) that there is a large number of good and respectable women ready to take children into their comfortable homes. For the repute of our English peasantry we should be sorry to think otherwise; though in the opinion of many shrewd observers some change must be made in the scale of payment and in the methods of inspection before the system can extend in the way its humanity, its success, and its cheapness alike deserve."

The Scattered Homes System.

This name is given to the plan of having small homes for children placed in the ordinary streets of a town or suburb. The homes, that is to say, are scattered, not grouped or encircled by a ring fence.

For children who cannot be boarded out, or emigrated, the scattered home system offers the best alternative.

1. Because the children do not enter the workhouse, but go at once to the children's receiving home, from whence they are drafted into homes.
2. Because the homes are not all grouped together, making a children's pauper colony, as in a village community, or grouped cottage homes, but are scattered in different neighbourhoods, not more than two homes being placed in close proximity to each other.
3. Because each home contains from eight to twelve children of various ages (girls, boys, and little ones), who, under the care of a foster-mother, enjoy many of the advantages of family life.
4. Because the children attend the churches or chapels, and public elementary schools, with the ordinary child population, and share with them their interests, sorrows, and pleasures.
5. Because it is possible when the numbers are small to consider each child's individuality, to teach it to think and act for itself, and share in the usual daily labours of the household.
6. Because in most cases the houses can be hired (the ratepayers being thus saved the expense of buying land and building), and the guardians are able, should the number of children chargeable to the union decrease, to vacate one or more of the houses.
7. Because even where houses cannot be hired, and have therefore to be built, it is easily possible to let or sell them as they are like ordinary houses. Who would buy one or two out of twenty or forty villas within a ring fence?

This system is, I am glad to say, extending. Begun about fourteen years ago by the Sheffield Board, it has now been copied, until there are no less than 295 scattered homes, worked by 42 Boards of Guardians.

(To be concluded).

STATE CHILDREN EMIGRATION.

(To the Editor.)

SIR,—As a reader of your Journal from its inception, let me heartily congratulate you on your success and enlargement. I am greatly interested in emigration of State children, and am glad to see your sensible remarks that "much valuable time is being lost" in dealing with this important matter. I was unable to be at the meeting at the Mansion House on January 30, and had no invitation to last Monday's conference. May I state, for the information of those interested in this subject, that as far back as June 29, 1903, a conference on the emigration of orphan and deserted children by Boards of Guardians was held at the Board Room of the Lambeth Guardians, Kennington, S.E.

This conference was well represented by Metropolitan Boards, and after a lengthy discussion upon an excellent paper read by Mrs. Despard, of Lambeth, I moved, and it was seconded by Mr. W. S. Fenton Jones, Hackney: "That this conference of delegates of Metropolitan Parishes and Unions petition the Local Government Board to confer with the Dominion Government with a view to the establishment of a Receiving Home for the reception and setting out into Canadian life all children who are suitable for emigration." I pointed out that it was all very well for the Local Government Board to send circulars round to Boards of Guardians urging them to emigrate the children, but the difficulty that presented itself was, where were they to be sent? What was needed was a receiving home in Canada. This would ensure proper supervision, and until they had that assurance, no scheme of emigration would be satisfactory. Mr. Preston, Commissioner of Emigration, was present, and in his speech held out the belief that both the Provincial and Federal Governments would favour such a scheme. As the whole matter was referred to a committee, at the suggestion of the chairman, I withdrew my motion, as he hinted that no doubt the committee would formulate some such resolution as mine.

On November 17, 1903, the committee met, and after a long sitting the matter was again fully discussed. I moved, and it was seconded by Mr. H. Osburn (Wandsworth and Clapham Union), my former resolution, with an addition to give effect to the same, which was carried unanimously.

Now, sir, it is quite time something definite was done for these children. They are the property of the State, as well as their parents. Too long have statesmen looked on unconcerned on this and other social matters. We want the facilities given us for planting a race of Englishmen elsewhere, who may grow up under happier conditions, and be a blessing to our Colonies, an honour to the old country, and loyal to one Crown. If we still harbour them here when they leave the cover of the Poor Law, they will only drift away again, and starve amidst dirt and disease, and vice and drunkenness. The Dominion of Canada can do with them; she is ever groaning for population, because she knows that the surest road to the development of trade lies in the development of our Colonies. Therefore, give us a Receiving Home in Canada, where the children would become initiated in the ways of that country, and would grow up as if born in that country, be a blessing to it, and a great saving to the already overtaxed English ratepayer.—Yours, &c.,

Edwin H. Kerwin,
Vice-Chairman Mile End Board of Guardians.

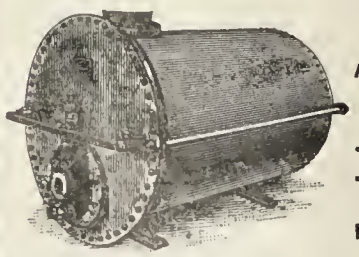
March 14, 1905.

HEATING OF BUILDINGS & HOT WATER SUPPLY

FROM LIVE OR EXHAUST STEAM.

The Latest and Best Appliance is

ROW'S PATENT **CALORIFIER**



Storage Calorifier for Baths.

Combined with AUTOMATIC STEAM CONTROL (Royles' Patent)

Adopted by the Metropolitan Asylums Board, London County Council, Manchester, Liverpool, Glasgow, Edinburgh Corporations, and others, for Bath Supply.

COPIOUS SUPPLY, UNIFORM TEMPERATURE.

ROYLES LIMITED, IRLAM, near Manchester.

ALSO MANUFACTURERS OF

Feed Water Heaters, Condensers, Evaporators, Steam and Gas Kettles, Syphonic Steam Traps, Reducing Valves, Oil Separators, Exhaust Heads, Boiler Mountings, &c., &c. Price and full particulars on application.

Vertical Calorifier for Hot Water Circulation.

POOR LAW OUTLOOK.

The Significance of the Increase of London's Homeless. How Birmingham is Working Out the State Child's Salvation. Boys of "Known Criminal or Vicious Habits" Excluded from the Training Ship "Exmouth." Virtual Confession by the Sunderland Union of Laxity in Administration. The Sick Poor and Pauper Nurses.

THE average man reads that on the night of the 17th February there were in the streets of London, on staircases, or under arches, 1,869 homeless men and—horrible!—312 homeless women, and he shudders. To the next wretched-looking individual who asks him, he perhaps gives a coin, and his conscience is for the time-being salved. But indiscriminate almsgiving and indiscriminate charity generally are one of the causes most clearly visible why these people are living such wretched lives. We have not a word to say against the social work of the Salvation Army or of the Church Army—it is admirable and even noble in many respects—but it is significant that of these 2,181 homeless people 827 men and thirty-nine women were in Wych-street, Strand, where food was being given away by the Salvation Army, and 161 men and sixty women were in Whitechapel-road, where similar distributions were taking place. And is it not significant that with the increase of the free meals and shelter is an increase of the number of these truly wretched people? We would not say let the night shelters be closed and the free food distribution cease—the picture is too awful!—but we would say, let it be recognised by everyone who has a heart for the real welfare of this downtrodden class, that these methods do not touch the root of the evil; but, by nourishing the branches, increase what they seek to prevent.

❦ ❦ ❦

Birmingham and the Children.

THE Birmingham Guardians, who have just opened further accommodation for "daughters of the State," bear the proud name of being the first to establish cottage homes in this country. These have been in existence twenty-five years, and at the present time there are 423 children in them. In addition to these, there are 150 at the Certified Poor Law Schools. In consequence of the pressure on the accommodation for children (especially girls) at the workhouse, the Management Committee of that institution a short time ago decided to rent a house, Summerhill Lodge, for the temporary accommodation of thirty girls. It was not without some little opposition at the Board meeting that the proposal of the Committee was passed, and then the sanction of the Local Government Board had to be obtained. The Inspector for the District (Mr. H. Stevens) subsequently visited the house, and, his report being favourable the Guardians lost no time in making it suitable for the purpose for which they required it. Considerable expense has been incurred in renovating the interior and providing additional sanitary and bathing arrangements.

❦ ❦ ❦

Girls' New Home.

THE house is conveniently situated about half-way between the workhouse and the parish offices. It stands on a dry and elevated spot, and is well arranged for the accommodation of the thirty girls and two female officers, who are in charge of the home. The stores for the "family" are supplied from the workhouse, and the washing is done at that institution. The house is taken by the Guardians on an annual tenancy, at a rental of £50 and rates. There is ample accommodation on the ground floor, including the officers' sitting-room, a large day-room for the girls, two large kitchens, and outbuildings, and there is a long garden at the back, which will afford scope for recreation. Leading out of the bath-room on the first floor is an escape staircase, erected by the Guardians, in case of an outbreak of fire, and on the upper storey a canvas "shoot" is provided as a means of escape from the upper part of the building. The girls attend the Council Schools. On Sundays they are taken to a place of worship, and arrangements are being made for the elder ones to attend Sunday schools.

❦ ❦ ❦

The Unfortunate "Ins and Outs."

THERE are still, we understand officially, from sixty to seventy children in the workhouse. These, it may be supposed, are largely of that unfortunate class known as "ins and outs"—the children of vagrant parents. Even though these come under the influence of the Guardians but transitorily, it has often been argued that they should not be placed in the workhouse. Little can be done for them, however, until legislation gives Guardians power to take them permanently from their worthless parents. Some couple of years ago, a proposal was made by members of the Birmingham Board to negotiate for the purchase of a lodge and grounds for the purpose of establishing a home for this class of children, quite apart from the workhouse. This recommendation was defeated, but the question of securing a home for this particular object is still under the consideration of the Board, which at a recent meeting received a report on the matter, but postponed discussing it.

❦ ❦ ❦

Other Unfortunate Children.

THE Guardians are making praiseworthy efforts to raise the conditions of other classes of unfortunate children. For upwards of two years a number of feeble-minded children have been "lodged" out in suitable homes, for the purpose of enabling them to attend the special classes provided by the city education authority. Satisfactory progress has been made, and some of the children have become qualified to return to school. At the infirmary, there is a number of physically-feeble children, and for them a lady teacher has been engaged to give elementary and interesting instruction. The children thoroughly appreciate the interest taken in their welfare, and their lives have been much brightened in consequence. The last report of progress made by these children far exceeded the anticipations of the Infirmary Committee. Through an arrangement with the education authority of the city, several crippled children detained at the infirmary are conveyed to and from a crippled children's school. A noble example is thus being set by this Board in the better treatment of those who may one day be useful citizens.

❦ ❦ ❦

Management of Bad Boys.

AN internecine war is always being waged between the Metropolitan Asylums Board and the various Boards of Guardians as to the class of boys to be sent and accepted for the training-ship "Exmouth." It cannot be denied that many guardians regard this old ship—which, by-the-by, will be succeeded in a few months time by the new one—as a dumping-ground for all their worst boys. Not very long ago, the M.A.B. had to refuse a boy for the service because he was bow-legged and pigeon-chested. A turn has been given to this warfare by the passing of a new rule by the M.A.B., excluding admission to the "Exmouth" of "boys of known criminal or vicious habits." It may, we think, justifiably be argued against this new rule that if this class of boys cannot be managed by retired naval officers on board a training-ship, they will be less likely to meet their masters in, say, a cottage-home under the care of a foster-mother. Possibly, the Fulham Board of Guardians thus reasoned in its corporate mind, for at the last meeting it gave directions for a letter to be sent to the M.A.B. expressing disapproval of the action of that Board in the matter.

❦ ❦ ❦

Sunderland's Lax Policy.

THE Sunderland Board of Guardians has made an admission which tells heavily against the nature of its policy. The Local Government Board Inspector (Mr. James Lowry) wrote desiring to be furnished with the cause of the increase of pauperism in the union, and asking whether there had been any unusual want of employment in the union, and whether steps had been taken by the local authorities to provide work. Now it appears that, though there was a large amount of unemployment at the close of 1904, the shipping and coal export returns showed that there was more employment than at the corresponding term in 1903. The Guardians were, therefore, forced to one conclusion, and the Clerk (Mr. Thompson), after consulting with the Chairman and the relieving officers, replied to the Inspector, stating that

> the cause of the increase was due to the workhouse test not being sufficiently applied, and the increase in the scale of out-door relief.

The Board is possibly beginning to realise that it can have as many paupers as it likes to pay for. Wisely, it concurred with the terms of the reply, and we trust that the future will see an improvement in the administration. Up to the present, no steps have been taken by the authorities in the union to provide work.

❦ ❦ ❦

What to Do with the Tramp.

IT is not at all incompatible with strict administration that more should be done for the tramp than to give him food and labour, compared with which prison fare is often preferable. Alterations in this regard should not be so much the making of the tramp more comfortable, but the changing of his conditions so that he may receive real incentives to useful labour. We notice that one of the first matters to which this Sunderland Board of Guardians will turn its attention is this question of the treatment of the tramp. A committee has been appointed to take into consideration the food and work to be given him. We trust the advisability of establishing, or joining in the establishment of a labour colony for this class of men, with greater powers of detention than are at the present time possessed by the guardians, will not be overlooked. In our opinion, the only possible solution of the problem lies in this direction.

❦ ❦ ❦

Nursing Sick Poor.

SOME interesting figures showing progress in regard to the nursing of the sick poor are given in a return prepared by the Local Government Board Inspector for the North-Western District (Mr. Jenner Fust). This district comprises Lancashire, Westmoreland, and part of Cumberland. The total number of sick on Jan. 1, 1905, was 10,680, and the number of patients to each nurse was 12.17. The number of pauper attendants was 160. Twelve months ago the total number of sick was 10,436, the number of patients to each nurse 12.28, and the number of pauper attendants 175. The return shows that the Manchester Union has ten patients to each paid nurse, and a total of three pauper assistants; the Chorlton Union ten and no pauper assistants, the Prestwich Union 14 and 22 pauper assistants, the Salford Union 18, and one pauper assistant, the Salford Union Hope Infirmary 13 and no pauper assistant, and the Barton-on-Irwell Union 11 patients to each paid nurse and seven pauper assistants. All honour to those unions that have abolished the pauper assistant. English Boards of Guardians have largely abolished pauper attendants for the children, and the next step is to do away with pauper assistants for the sick. The best trained nursing, which gets a patient soonest upon his legs, is in the end most economical to the community and to the guardians.

THE NATIONAL ELECTRIC CONSTRUCTION Co., Ltd.,

ELECTRIC LIGHT, POWER & TRACTION ENGINEERS.

CONTRACTORS TO H.M. WAR OFFICE, OFFICE OF WORKS, GENERAL POST OFFICE, &c.

Head Office: 34, VICTORIA ST., WESTMINSTER, LONDON, S.W.

Telegraph Address: "OVERHAULED, LONDON." Telephone: No. 5134 GERRARD.

Complete Town Lighting Schemes carried out for :—

BO'NESS, N.B. MUSSELBURGH, N.B. (Tramways and Lighting). CARNARVON. HOLYHEAD. KILDARE (IRELAND).

Agreements Completed with the following Local Authorities :—

BASINGSTOKE, ORMSKIRK, PAIGNTON WISBECH.

INCANDESCENT ELECTRIC LIGHTING!

THE GREATEST IMPROVEMENT DURING THE LAST 20 YEARS IS

LINOLITE

(LINE O' LIGHT.)

LINOLITE is ECONOMICAL, EFFICIENT, NEAT, SIMPLE, and easily adapted—never in the way.

In LENGTHS, ONE to EIGHT FEET. WEIGHT, 6oz. per FOOT. LAMPS, 3·75 Watts per C.P. Average LIFE, 1,000 HOURS.
Registered Trade Mark—"LINOLITE."
The LINOLITE System showing succession of Lamps in Silvery Reflector, giving a brilliant direct Light, or pleasing and soft indirect Light, Suitable for either direct or alternating current.

LINOLITE

IS INDISPENSABLE FOR

CORNICE, PICTURE, and SHOP WINDOW LIGHTING.

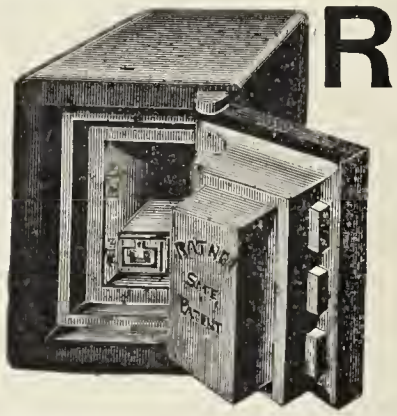
Its installation and up-keep costs less than the old systems.

TO BE SEEN IN USE AT THE

LINOLITE COMPANY'S OFFICES,

25E, Victoria Street, WESTMINSTER.

Telephone No. 244 Victoria.



RATNER

Twelve Corner Bent Solid Steel

SAFES,

STRONG ROOM DOORS,

STEEL STRONG ROOMS, SAFE DEPOSITS,

As supplied to the following, among other Public Bodies :—

ADMIRALTY. 500 Safes.
BOARD OF TRADE.
H.M. BOARD OF WORKS.
H.M. POST OFFICES.
WAR OFFICE, 300 Safes.
DUBLIN CASTLE.
INDIA OFFICE.
CROWN AGENT FOR THE COLONIES.

ROTHERHITHE TOWN HALL.
TOWN HALL, BELFAST.
CORK HARBOUR COMMISSIONER.
CORK COURT HOUSE, CORK.
LONDON COUNTY COUNCIL,
GUARDIANS OF THE POPLAR UNION. Three large Registrar Safes.
GUARDIANS OF THE WIGAN UNION.
GUARDIANS OF BISHOP AUCKLAND UNION.
GUARDIANS OF PONTEFRACT UNION.
GUARDIANS OF THE WESTMINSTER UNION.
FARNBOROUGH TOWN HALL.
BEXHILL URBAN DISTRICT COUNCIL.
HAMPSTEAD BOROUGH COUNCIL.
RADSTOCK U.D. COUNCIL.
BLACKPOOL TOWN HALL.
GREAT YELDHAM PARISH COUNCIL.
MARKET HARBOROUGH U.D.C.
DEPTFORD BOROUGH COUNCIL.
PADDINGTON VESTRY.
ROTHWELL U.D.C.
PENGE DISTRICT COUNCIL.
WYNDIGATE DISTRICT COUNCIL.
BROMLEY URBAN DISTRICT COUNCIL.

The RATNER SAFE CO., Ltd., have just secured an order for a Drill-proof Strong Room for the Premier Diamond Mines of Johannesburg (a company which, with a capital of £85,000, made last year a profit of £670,000, and expects this year to make £2,000,000). It will be the strongest room ever constructed, and the order was secured after severe competition not only with the other English makers, but with American makers as well.

Catalogues and all particulars free on application to

51, MOORGATE STREET, E.C.

DIALITE

THE

STANDARD

CABLE

FOR ALL

PURPOSES.

THE ST. HELENS CABLE CO., Ltd.,

WARRINGTON.

ELECTRICITY SUPPLY.

Complaints as to the Deterioration or Premature Blackening of Lamps. The Cause and Cure of "Over-Volting," which is a Curse to the Consumer and a Nuisance to the Undertakers. Lincoln's Work Under Analysis. A Surplus of Over a Thousand Pounds for the Year 1904. Walsall Rapidly Becoming a Traction Station.

THE accounts last published for the electricity undertaking of the city of Lincoln cover the period to March 31 of last year, in which financial year the surplus was £759, out of a revenue of only £6,201. This is a good showing for a small undertaking, and it is especially satisfactory to find that the debit balance brought forward of £1,665 has by this means been reduced to £906, a sum which should be wiped out by the profits of the current year. At the same time, the supply is given at a low rate, and the result has been attained solely by economical production. This again has not been influenced by a tramway load, but this may be looked for in the future as a valuable assistance towards still lower costs.

The revenue derived from sales of electricity, &c., amounted to	£6,201
And the working expenditure to	2,700
Leaving a gross profit of	£3,501
Out of this sum the following requirements were met:—	
Interest on mortgage debt	£1,351
Bank interest	188
Redemption of debt	1,196
Bad debts	7
Total of capital and special charges	2,742
Surplus for year	£759

❦ ❦ ❦

The Position at Lincoln.

IN the foregoing summary of results the bad debts are shown as an item of expenditure in the nett revenue account, but, following our usual custom, we have eliminated these in the statement of revenue. The income from private supply shows a satisfactory increase of £681 from lighting and £78 from power, while there are small additions from public lighting and the sale of lamps, bringing the total increase up to £793, or, in other words, the surplus is practically equal to the extra receipts. This additional revenue was obtained at an increase in expenditure of only £270, showing that any further increase may be expected to still further augment the surplus unless the extensions involve capital expenditure, the charges for interest and repayment on which have to be met in advance of the receipts therefrom.

LINCOLN.	Units.	Yielding	Per unit.
Private consumers took ...	341,109	£5,419 =	3·813d.
Public lamps consumed. ...	58,688	714 =	2·920d.
Interim total	399,797	£6,133 =	3·682d.
Sale of lamps, &c.	—	61 =	·036d.
Revenue in all	399,797	£6,194 =	3·718d.
Units used on works	78,663	(The maximum load was 372 k.w., equivalent to a load factor of 12·27 per cent.	
Total accounted for ...	478,460		
Utilised on distribution ...	24,571		
Total units generated ...	503,031		

❦ ❦ ❦

Depreciating Account.

THE subject of a depreciation account has been mooted, and it is a good sign to find this important question of the financial stability of the undertaking raised in its initial stages. Maintenance is not depreciation, but Lincoln has to pay heavily for the use of its capital, the period sanctioned for repayment being only twenty-three years. Public lighting at present comprises 30 arc and 116 incandescent lamps; eleven and a half miles of main have been laid, and to these were connected 396 consumers, with an equivalent of 28,365 8-c.p. lamps, including the street lamps. The average number of lamps per consumer has remained fairly steady, but in the last four years has increased from 55 to 71. The prices charged are 6d. per unit for the first hour, and 2½d. afterwards, on the sliding scale, the maximum demand being taken in each quarter. As an alternative, consumers with over 5,000 units per annum are allowed 6d. and 2d. per unit. A special rate of 5d. is allowed to churches and chapels, and 4d. to theatres and music-halls. For power the rates are 4d. for first hour's average and 1d. after, or, as an alternative, 2½d. per unit.

The amount received was taken up and allocated thus:—

	Amount.	Per unit.
Works' costs	...£1,809 =	1·086d.
Rates, taxes, and management.	853 =	·512d.
Total cost	...£2,662 =	1·598d.
Public lamp maintenance ...	38 =	·023d.
Gross cost	...£2,700 =	1·621d.
Interest charges	1,539 =	·924d. } 1·642d
Sinking fund charges	1,196 =	·718d. }
Total actual cost of units sold	£5,435 =	3·263d.
Add surplus for year	·759 =	·455d.
Revenue in all... ...	...£6,194 =	3·718d.

❦ ❦ ❦

Walsall.

THE Walsall Corporation results have now been published for the financial year ending December 31, 1904, and it will be seen that they are of a very satisfactory character:

The revenue derived from electricity supply, &c., amounted to	£12,109
And the working expenditure to	6,792
Leaving a gross profit of	£5,317
Out of this sum the following requirements were met:—	
Interest on mortgage debt... ...	£2,233
Sinking fund and repayments ...	1,598
Instalment repaid *re* tramways...	425
Total of capital charges ...	4,256
Surplus for year 1904	£1,061

The receipts were obtained from the following sources:—

	Units.	Yielding.	Per unit.
Private consumers took ...	423,192	£6,227 =	3·531d.
Public lamps consumed ...	34,392	503 =	3·510d.
First interim total	457,584	£6,730 =	3·529d.
Traction sales amounted to	707,654	5,191 =	1·761d.
Second interim total ...	1,165,238	£11,921 =	2·455d.
Meter rentals...	—	188 =	·039d.
Revenue in all	1,165,238	£12,109 =	2·494d.
Units used on works ...	52,330	(The maximum load was 754 k.w., equal to a load factor of 17·64 per cent.)	
Total accounted for ...	1,217,568		
Utilised on distribution ...	411,160		
Total units generated ...	1,628,728		

❦ ❦ ❦

Receipts.

WALSALL is rapidly becoming a traction station, with the private supply and public lighting as auxiliaries. Under the circumstances, it would seem that the rate for public lighting could be reduced with advantage, and the output in this direction be increased. The costs and allocation of the receipts are given in the following statement:—

WALSALL, 1904.	Amount.	Per unit.
Works cost	...£5,239 =	1·079d.
Rates, taxes, and management..	1,476 =	·304d.
Total cost	...£6,715 =	1·383d.
Public lamp maintenance ...	77 =	016d.
Gross cost	...£6,792 =	1·399d.
Interest charges	... 2,233 =	·460d. } ·877d.
Sinking fund charges ...	... 2,023 =	·417d. }
Total actual cost of units sold	£11,048 =	2·276d.
Add surplus for year ...	... 1,061 =	·218d.
Revenue in all... ...	£12,109 =	2·494d.

The advantage of the large traction load in reducing the average cost per unit of the capital charges is very apparent.

Premature Blackening of Lamps.

A CORRESPONDENT has drawn our attention to the report of the Council meeting at Tunbridge Wells, when the question of blackening of consumers' lamps was considered. The object of the question which was addressed to the Chairman of the Electricity Committee at a former meeting was probably to stimulate interest in the electricity undertaking, and incidentally to draw attention to some of the difficulties which consumers meet with. If the deterioration or premature blackening of lamps is one of the causes which induce many consumers to resort to gas lighting, it is certainly time that the technical advisers of the Corporation look into the distribution and maintain a voltage within the limits imposed by the Board of Trade. It may generally be said that the undertakers (or sellers of electrical energy) are really providers of light and power, and in both instances the efficiency of the supply from a user's point of view depends upon equality of pressure. It is a well-known fact that carbon-filament lamps vary in candle power about 1 c.-p. on a 100-volt lamp for each volt above or below the marked pressure, or that for which the lamp is constructed. The horse-power of a motor falls off twice as rapidly as the percentage is reduced in volts (or, technically speaking, the power varies roughly as the square of the pressure). To safeguard the consumer, the Board of Trade has imposed a limit of four per cent. on each side of the "declared" or nominal pressure, and the onus lies on the undertakers to maintain the supply volts within these limits at all times.

❦ ❦ ❦

Reasons for Loss of Pressure.

DIFFICULTY arises from the fact that the loss of pressure in the mains depends upon three factors—their size, length, and the current they are carrying. To maintain at all times a uniform pressure involves either uniformity of load throughout a system or some means of regulation. A new main is usually lightly loaded, and those consumers supplied by it too often are given an abnormally high pressure, while at the same time customers in the older areas fed by mains already well loaded up are complaining that the light is dull, and that their lamps are merely red-hot hair-pins. Tunbridge Wells, like other alternating stations, supplies the feeder mains, we presume, from a pair of omnibus-bars, the pressure of these being raised as the load comes on to compensate for the loss between the generating-station and the town. This may be as much as ten per cent. of the total generated pressure. This method would meet all the requirements if the load came on simultaneously, and if the load on the mains were proportional to their size; in electrical language, if the current density were uniform or inversely proportional to the length where this varied. But these conditions do not hold in practice, and, accordingly, to give such a supply as meets the needs of the public, it is necessary to provide means for regulating the pressure delivered by very long and heavily-worked feeders (taking extra pressure) and short or lightly loaded ones (requiring less pressure than is provided by the common omnibus-bars on the switch-board). Apparatus to enable this to be done is obtainable from different makers, and forms a very useful auxiliary to the controlling switch-gear.

❦ ❦ ❦

The Cure.

IF the pressure of supply be too high, the first effect is to cause the lamps to give a brilliant light for the time being, but such excellence is of short duration, as a process of molecular bombardment occurs whereby the carbon filament loses part of the material composing its structure, and this is deposited on the interior of the glass envelope of the lamp, rendering it semi-opaque and interfering with the transmission of the light. This is the blackening of the lamps referred to, and when once it has occurred, there is no remedy

exeept the radical one of replacing the lamp by a new and elear one. What is termed "over-volting" is a curse to the consumer, and a nuisance to the undertakers, as the variations in the light given lead to dissatisfaction with the supply, and consequent loss of custom. The cure is to maintain a reasonably uniform voltage, and this is possible, if care be taken in the works to run the plant under the best conditions, that the mains have been properly designed, and that regulating appliances, such as we have referred to, are provided where the variations in load would otherwise tend to an undue loss of pressure in one quarter, and an abnormally high voltage in another.

❦ ❦ ❦

Insulating Materials.

THE day has gone past when engineers were content to drag a number of eables into one pipe, and trust to luck that there should be no breakdown in any one. A fault in one was almost certain to injure the remainder, and the consequent stoppage of supply was frequently a serious set-back to the prosperity of an undertaking. Moreover, it was not an unheard of thing, as old-timers know, to employ brute force in the form of dray-horses to get the cables into position when the pipe was small and the cables were many. Injury was done at the outset, and the continual troubles which pestered the staff and consumers alike afterwards may be said to have been deliberately sought for. They eame as the logical consequence of a course of action which seems to have been committed against all telegraphic experience. It was due to earelessness or want of ordinary attention rather than to the absenee of reliable insulating material that so mueh trouble used to be found with mains in general, and india-rubber as an insulator has undoubtedly not reeeived fair play. Because it enabled a cable to be manufactured which possessed flexibility and waterproof qualiiies, it was treated in a rough and unworkmanlike manner, and when it failed under such adverse circumstanees to maintain insulation the material was blamed instead of the mode of handling, or rather abusing, it. No one to-day would, of course, employ rubber, owing to its expense, and, as the market call for it inereases the price must go up still further.

❦ ❦ ❦

Careless Workmanship.

BUT the troubles with rubber have been repeated on a smaller scale with other insulating materials where proper attention has been absent at the time of eables being laid. Even on the solid system, it has been found undesirable to lay more than one cable in a trough, and good modern practice requires a separate trough on the solid system and a separate duet on a drawing-in system for each cable. The chanees of breakdown are then reduced to a minimum, provided that the lead-sheathing, which invariably proteets hygroseopic dielectrics from the aecess of moisture is proteeted by bitumen or piteh along the whole length of such material. Engineers are learning that the solid system is only the best and safest method of laying when it is carried out in its entirety, and we have seen lead-covered cables laid with the greatest eare along their run, but exposed where they enter boxes, and even cemented into the brickwork which is built to carry the permanent covers. This is sure to lead to trouble, and our managing committees would be well advised to ascertain that their mains superintendents are thoroughly conscientious men, with some chemical knowledge in addition to the general technical experience which they generally possess in full measure.

NEW L.C.C. COMMITTEES.

SOME NOTEWORTHY CHANGES.

WE give below a list of the new committees of the London County Counеil, as appointed at the last meeting of that body at the recommendation of the General Purposes Committee. Besides the personnel, one or two alterations in the committees are noteworthy. In the future the Establishment Committee will consist of eight instead of seven members. The Publie Control Committee will undertake the administration of the various Acts, orders, and regulations as to use of heavy and light loeomotives on highways. This alteration is made partly, if not wholly, on the suggestion of the committee itself, whieh proposed that these duties should be administered either by itself or the Highways Committee. It wrote to the General Purposes Committee also stating that the Inebriate Aet, 1898, and matters conneeted therewith, should be dealt with by a separate committee, instead of being ineluded in its order of reference, but this the General Purposes Committee did not think desirable. The composition of the new eommittees is as follows:—

Asylums Committee.—W. B. Bawn, R. M. Beaton, C. W. Bowerman, A. F. Buxton, G. J. Cooper, W. Crooks, G. Dew, Lord Elcho, T. Penn Gaskell, Major W. H. Gastrell, H. J. Greenwood, E. J. Horniman, N. W. Hubbard, T. Hunter, J. Jeffery, W. C. Johnson, Rev. L. J. Jones, Sir John McDougall, Lord Monkswell, W. C. Parkinson, John Piggott, W. Pope, G. Shrubsall, W. C. Steadman, B. S. Straus, R. Strong, H. R. Taylor, Edward White, W. Wightman, Jabez Williams.

Bridges Committee.—W. B. Bawn, Sir T. Brooke-Hitching, W. Crooks, T. Penn Gaskell, H. H. Gordon, H. Gosling, W. C. Parkinson, J. E. Sears, J. Smith, Hon. A. L. Stanley, B. S. Straus, C. Y. Sturge.

Building Act Committee.—W. Davies, F. Goldsmith, W. Goodman, R. W. Granville-Smith, H. J. Greenwood, G. A. Hardy, Capt. F. Hemphill, H. Jephson, John Lewis, R. C. Phillimore, John Smith, Hon. A. L. Stanley, H. R. Taylor, Edward White.

Establishment Committee.—J. W. Cleland, Major W. H. Gastrell, W. E. Mullins, Edward Smith, W. C. Steadman, Capt. G. S. C. Swinton, Graham Wallas, T. Wiles.

Finance Committee.—W. W. Bruce, A. F. Buxton, T. Gautrey, H. P. Harris, H. Jephson, W. J. Lancaster, A. L. Leon, Lord Ludlow, Sir John McDougall, Sir F. Mowatt, Lord Sandhurst, Evan Spicer, R. Spokes, Sidney Webb, Lord Welby.

Fire Brigade Committee.—A. A. Allen, W. Bailey, John Burns, C. Goddard Clarke, S. Collins, T. Davies, J. D. Gilbert, Hon. R. Guinness, Hon. Dudley Leigh, W. C. Parkinson, Lt.-Col. A. Rotton, L. Sharp, G. Shrubsall, Edward Smith, Hon. A. L. Stanley.

Highways Committee.—J. A. Baker, Sir R. M. Beachcroft, J. W. Benn, Sir H. W. Bliss, E. Browne, J. W. Cleland, Capt. F. Hemphill, N. W. Hubbard, W. C. Johnson, Sidney Low, I. H. Mitchell, R. C. Phillimore, D. S. Waterlow, T. Wiles, T. Mackinnon Wood.

Housing of the Working Classes Committee.—J. Branch, W. W. Bruce, Earl Carrington, F. Chambers, G. Dew, W. H. Dickinson, T. Hunter, Sir John McDougall, J. E. Sears, J. Stephens, H. R. Taylor, J. T. Taylor, D. S. Waterlow, Jabez Williams.

Improvements Committee.—J. W. Cleland, T. Davies, W. Davies, Lord Elcho, Major W. H. Gastrell, W. Goodman, R. W. Granville-Smith, H. A. Harben, Capt. F. Hemphill, E. J. Horniman, N. W. Hubbard, Rev. L. J. Jones, John Lewis, Lord Sandhurst, H. R. Taylor.

Local Government Records and Museums Committee.—Sir H. W. Bliss, G. J. Cooper, F. Dolman, J. D. Gilbert, H. J. Glanville, E. J. Horniman, W. C. Johnson, John Lewis, T. B. Napier, W. S. Sanders, Stuart Sankey, C. Y. Sturges, W. W. Thompson, Graham Wallas, W. B. Yates.

Main Drainage Committee.—John Burns, E. Collins, T. Davies, T. Penn Gaskell, W. Goodman, H. H. Gordon, H. Gosling, W. Hunt, Sir John McDongall, H. Ward, Howell J. Williams.

Parks and Open Spaces Committee.—Sir W. J. Bell, F. Chambers, J. W. Cleland, S. Collins, B. Cooper, W. Crooks, W. Davies, F. Dolman, Lord Elcho, G. A. Hardy, T. Hunter, Hon. Dudley Leigh, Lord Monkswell, John Piggott, Ambrose Pomeroy, Sir W. B. Richmond, Lt.-Col. A. Rotton, Stuart Sankey, G. Shrubsall, Alfred Smith, J. Stephens, Capt. G. S. C. Swinton, A. M. Torrance, F. W. Warmington, Rt. Hon. Sir A. E. West.

Parliamentary Committee. — Members of the Legislature J. W. Benn, J. Burns, Earl Carrington, W. Crooks, Earl of Essex, Lord Ludlow, Lord Monkswell, Lord Sandhurst, Lord Welby. Other members—J. A. Baker, W. W. Bruce, H. P. Harris, T. B. Napier, G. H. Radford, R. A. Robinson, Stuart Sankey, A. J. Shepheard, F. W. Verney, T. McKinnon Wood, W. B. Yates.

Public Control Committee.—Sir H. W. Bliss, C. Goddard Clarke, S. Collins, B. Cooper, F. Goldsmith, H. J. Greenwood, H. A. Harben, G. A. Hardy, T. Hunter, W. C. Johnson, G. Lampard, Ambrose Pomeroy, G. H. Radford, B. S. Straus, W. B. Yates.

Public Health Committee.—R. M. Beaton, Sir H. W. Bliss, C. W. Bowerman, Sir T. Brooke-Hitching, G. J. Cooper, E. B. Forman, Major W. H. Gastrell, J. Jeffery, H. Jephson, G. Lampard, Peter Lawson, W. C. Steadman.

Rivers Committee.—Representatives on Conservancy Boards—W. W. Bruce, E. A. Cornwall, Earl of Essex, J. D. Gilbert, Sir J. McDougall, R. A. Robinson, W. C. Steadman, R. Strong. Other members—H. Gosling, Hon. R. Guinness, R. S. Jackson, E. Smith, F. W. Verney, T. Wiles, Jabez Williams.

Stores Committee.—E. Barnes, W. B. Bawn, C. W. Bowerman, F. Chambers, H. J. Greenwood, N. W. Hubbard, W. C. Johnson, Sir J. McDougall, Lt.-Col. C. Probyn, F. W. Warmington.

Theatres and Music Halls Committee.—Sir W. J. Bell, Jocelyn Brandon, T. Davies, H. J. Greenwood, I. H. Mitchell, Lt.-Col. A. Rotton, B. S. Straus, A. M. Torrance, D. S. Waterlow, Rt. Hon. Sir A. E. West, Howell J. Williams, W. B. Yates.

Works Committee.—T. H. W. Idris, L. Sharp, Edward Smith, A. M. Torrance, Henry Ward, D. S. Waterlow, Lord Welby.

Appeal Committee (Statutory).—E. Barnes, Sir H. W. Bliss, J. Branch, W. Goodman, N. Hanhart, T. H. W. Idris, A. L. Leon, Lord Monkswell, R. C. Phillimore, R. Strong.

Midwives Act Committee.—Public Health Committee—Miss Alexander, Dr. Annie McCall, Mrs. Steadman.

Representatives of the Council on the Standing Joint Committee of the Quarter Sessions and the Council.—The Chairman of the Council, the Vice-Chairman of the Council, the Deputy-Chairman of the Council, C. Goddard Clarke, W. Davies, Lt.-Col. A. Rotton, Stuart Sankey, Edward Smith, R. Strong.

The retiring vice-chairman and deputy-chairman of the Council are ex-officio members of certain committees as follows:—Mr. E. A. Cornwall, Establishment, Parliamentary; Mr. F. P. Alliston—Establishment, Theatres and Music Halls.

J.G. WHITE & COMPANY, LIMITED.
ELECTRICAL, MECHANICAL & CIVIL ENGINEERS
GENERAL CONTRACTORS
22A, COLLEGE HILL, CANNON ST. LONDON, E.C.
TELEGRAMS "WHITTERICK, LONDON" TELEPHONE 6044 & 6045 BANK

"MUNICIPAL JOURNAL" ANALYSES OF ELECTRIC TRAMWAY ACCOUNTS.

1903-4.

	Population.	Date tramways started.	Length of street route.	Gauge.	Capital outlay.	Number of passengers carried.	Number of car miles run.	Total receipts.	Working expenses.	Percentage of expenses to rec'pts	Nett receipts.	Percentage of nett receipts to capital.	Interest charges and lease rentals.	Repayment charges.	Surplus (+) or loss (−).	Provision for depreciation and reserve.	Contribution to rate fund.	Traffic receipts per car mile.	Expenses per car mile.	Average fare per passenger.	Electricity supplied by	Number of B.O.T. units used.	Price paid or cost of electricity per unit.
			Miles.	Ft. In.	£			£	£	%	£	Per cent.	£	£	£	£		d.	d.	d.			d.
Aberdeen ..	165.000	Aug., 1898	14·14	4 8½	314,407	15,538,167	1,379,723	64,071	37.054	58	27,017	8·59	10,389	2.397	+14,231	14,231	nil	11·00	6·45	·98	Elec. Dpt.	1,525,708	1·52
Ayr	33,000	Sept., 1901	5 69	4 8½	71,775	3.316,380	353,945	14,334	7,622	53	6,712	9·35	2,303	891	+3,518	3 518	nil	9·46	5·17	1 01	Elec. Dpt.	324,157	1 30
Birkenhead ...	113,300	Feb.. 1901	13·52	4 8½	345,960	11,327,932	1.349,701	55,946	34,748	62	21,198	6·13	10,538	8.777	+1,883	1,883	nil	9·72	6·18	1·16	Own wrks	2,128,607	·72
Blackpool ...	50.000	1885	9·62	4 8½	267,178	6,357,218	735,103	42,061	27,873	66	14,188	5·31	8,422	5.713	+53	nil	nil	13·50	9·10	1·56	Elec. Dpt.	1,008,529	1·83
Blackburn ...	188 000	1887	14·13	4 0	320,203	7,742.692	951,484	44,682	29 369	66	15,313	4·78	8,818	11,633	—5,138	nil	nil	10·94	7·41	1·34	Elec. Dpt.	1.785,712	1·50
Bolton	171.100	—	25·13	4 8½	504,509	19.895,496	2.188,030	95,096	54,716	58	40,380	8·00	12,233	13 654	+14,493	12.233	2,260	10·33	6·00	1·14	Elec Dpt.	3,098,292	1·25
Bournemouth ...	60 000	July. 1902	12·25	3 6	257.812	9,363 985	1,022,164	54,397	30.276	56	24.121	9·36	9,051	7.336	+7.734	nil	nil	12·31	7·11	1·34	Own wrks	1.601.039	·86
Bradford	324,000	July, 1898	48·52	4 0	818,205	39,639,44	4,546,942	197,438	135,869	69	61,569	7·52	*48,169	—	+13 400	2,917	nil	10·20	7·17	1·17	Elec. Dpt.	7.731,563	1 05
Brighton	123,500	Nov.. 1901	9·95	3 6	242,811	10.999,046	1,151,477	46,264	40,356	87	5,908	2·43	7,199	3,488	—4,779	nil	nil	9·60	8 41	1·00	Elec. Dpt.	1,774,988	1·50
Burnley	154,000	Dec., 1901	10·77	4 0	176,468	7,514,063	896,397	43,738	30,644	70	13,094	7·42	6,132	3,426	+3,536	3,536	nil	11·58	8·20	1·38	Elec. Dpt. & Nelson Crp.	1,461,700	1·79
Burton-on-Trent.	52.000	Aug., 1903	5·74	3 6	82,500	2,566,134	282.378	11,943	8,919	75	3.024	3·67	1,533	773	+718	718	nil	9·84	7 58	1·08	Elec. Dpt.	362.827	1·46
Cardiff	168,000	May. 1902	14 63	4 8½	687,222	23,574,204	2 643,762	105,017	65.351	62	39,666	5·77	19,219	14,084	+6,363	403	642	9·24	5·93	1·04	Own wrks	5.896.506	·45
Chester	39,000	April, 1903	2·50	3 6	66,098	2,002,835	260,785	8,916	5,332	60	3,584	5·42	2,026	1,218	+340	nil	nil	8·17	4·91	1 06	Elec. Dpt.	239,072	1·75
Darwen	40,000	Oct.. 1900	4·36	4 0	79,272	2,236 102	253.345	12.371	8.413	68	3,958	4·99	2,411	1,982	—435	1 050	nil	10 92	7·97	1·24	Elec Dpt.	422.583	1·71
Dover	42,000	Sept., 1897	3·00	3 6	41,850	2,871,332	280,901	11,839	8,714	74	3,125	7·47	*2,205	—	+920	nil	nil	9·63	7·45	·94	Elec. Cpy.	319,413	2·75
Dundee	163,000	July, 1900	12 65	4 8½	263,382	11,420,985	942,969	44,437	28,521	64	15,916	6 04	6,837	5.000	+4.079	2.842	nil	11·15	7·26	·92	Elec. Dpt.	1,661,721	1·49
East Ham ...	104,000	June, 1901	6·82	4 8½	135,591	12,950,269	807,002	35,301	24.262	69	11,039	8 14	5,806	3.285	+1,948	1 356	nil	10 20	7·22	·64	Elec. Dpt.	920.696	1·75
Farnworth ...	50,000	Jan., 1902	4·33	4 8½	43,696	1,532,293	242 524	7,486	4 850	65	2,636	6·03	3 241	1,175	—1,780	nil	nil	7 40	4·80	1·17	Elec. Dpt.	317,126	·50
Glasgow	1,000,000	July, 1894	70·34	4 7¾	2,107,880	188,962.610	16,291,082	724,851	356,820	49	368,031	17·46	64,376	45.553	+258,102	233,102	25 000	10·58	5·26	·91	Own wks.	15,372.609	·42
Halifax	168,000	June, 1898	33·41	3 6	342.460	16 322 059	1.387.885	68,289	50,758	74	17,531	5·12	9,957	7.081	+493	493	nil	11·76	8 78	1·00	Elec. Dpt.	2 659.920	1·62
Huddersfield ...	100.000	Feb., 1901	28	4 7¾	411.722	11.899,287	1,632,000	65,883	34 665	53	31.218	7·58	13 632	10.638	+6,948	11,687	nil	9·37	5·10	1·28	Own wks.	2.565.643	·34
Hull	248.000	July, 1899	13·60	4 8½	383,977	24 220 718	2 512.821	101,259	63 194	62	38.065	9·91	9.932	9.148	+18.985	7.485	11.500	9·61	6 04	1·00	Own wks	3 285.621	·63
Ilford	52,000	Mar.. 1903	6·50	4 8½	132,874	5,274,025	577,034	23,218	13,568	58	9.650	7·26	3,046	2,033	+4,571	4,571	nil	9 39	5 64	1·03	Elec. Dpt.	563,464	1·50
Kirkcaldy ...	34,100	Feb., 1903	5·25	3 6	78,731	2,770,936	301,779	10,189	7,623	75	2,566	3 26	2,012	471	+83	40	nil	7 90	6·06	·86	Elec. Dpt.	395.071	1·75
Lancaster ...	40.300	Jan.. 1903	3·41	4 8½	27,207	1,079,772	153,692	4,191	4,654	111	*loss* 463	—	1,245	1.125	—2.833	nil	nil	6·54	7·27	·93	Elec. Dpt.	199.600	2·00
Leeds	446 400	Feb , 1894	42·51	4 8½	1.107.977	60,739.234	6.091,437	281,418	155,598	55	125,820	11·36	27.639	27.094	+71,087	19.087	52,000	10·94	6 13	1·10	Own wks.	9 518,680	·34
Liverpool... ...	760,000	1868	57	4 8½	1,863,485	113,057,234	11,734,838	533,394	335,621	63	200,773	10·77	52,932	51,598	+96,243	64,162	32,081	10·73	6·86	1·11	Elec. Dpt. & Bootle Crp.	17,978,718	1 08
Manchester ...	750,000	June, 1901	79·49	4 8½	1,485.612	120,772,368	13.759.071	611,881	392,504	64	219,377	14·77	72,781	26.903	+119	69,693	50,000	10 52	6·85	1·20	Elec. Dpt.	16,815.764	1·49
Nelson	36,000	Feb., 1903	2·74	4 0	30,493	1,420,759	171,132	4,655	3,563	77	1,092	3 58	781	232	+79	nil	nil	6 47	5·00	·78	Elec. Dpt.	170.611	2 00
Newc'stle-on-Tyne	257,000	Dec., 1901	23·36	4 8½	1,054,493	39,715,120	4,059,907	184,170	120,700	66	63,470	6 02	28 896	22 638	+11,936	nil	nil	10 68	7·14	1·09	Own wks.	7.757 885	·36
Newport	76.000	April, 1903	8·50	4 8½	164 219	4,473,411	635,000	23,653	15.533	66	8.120	4·95	4,360	3,360	+400	nil	nil	8·63	5 87	1·22	Elec. Dpt.	641,860	1·50
Nottingham ...	240,000	Jan., 1901	16·25	4 8½	559,838	27,876.889	2.512,000	128,202	71.259	56	56,943	10·17	15,333	15.128	+26,482	13,482	13,000	12·07	6 81	1·09	Elec. Dpt.	3.768 601	1·25
Oldham	100.000	Dec., 1900	17·93	4 8½	432,188	12,968,880	1,420,455	60,413	43,286	72	17,127	3·96	15,324	9,629	—7.826	nil	nil	10·01	7·31	1·10	Elec. Dpt.	2,177,309	1·50
Portsmouth ...	198,000	Sept., 1901	14·50	4 7¾	634,406	18,204.426	1,828,193	92.917	43,427	47	49,490	7 80	18.343	15.119	+16.028	16.028	nil	11·46	5·70	1·15	Own wks.	2,695,605	·55
Rochdale	86,000	May. 1902	3·96	4 8½	83,386	1,156.300	194,490	6.981	6,761	97	220	·26	2.851	1.406	—4,037	nil	nil	8·42	8·34	1·42	Elec. Dpt	393.180	1·47
Rotherham ...	58,000	Jan., 1903	8·33	4 8½	105,762	4,914,479	525.840	21,341	15.602	73	5.739	5 42	2,088	1,261	+2,390	2,407	nil	9·57	7·12	1·02	Elec. Dpt.	806,291	1·50
Salford	300,000	Oct., 1901	32·50	4 8½	511,170	36,956,405	4,726,446	198,648	139,508	70	59,140	11·57	27,529	16,171	+15,440	3,440	12,000	10·08	7 09	1·29	Elec. Dpt. & Man. Cp.	6,102.524	1 89
Sheffield	425.000	1872	32·50	4 8½	988,316	61,450,993	5,768,231	233.829	156,403	67	77,426	7·83	30,722	19,394	+27.310	33.771	8,249	9 67	6·51	·91	Own wks.	9.460,618	·48
Southampton ...	107.800	July, 1898	9·72	4 8½	198,621	9,890,952	1,144,350	53,501	36,640	68	16.861	8·49	5.935	4,720	+6.206	1 206	5,000	10 88	7·68	1·26	Elec. Dpt.	1,298.392	2 25
Southport ...	49,000	June, 1900	8·42	4 8½	118,364	3,837,208	431,019	17,646	10,986	62	6.660	5·63	3,803	3,198	—341	nil	nil	9 63	6·12	1·08	Elec. Dpt.	492,261	1·50
Stockport... ...	110,000	Aug., 1901	12·27	4 8½	140.276	3,170.854	606,476	19.074	12.914	68	6.160	4·39	4,196	1.334	+630	nil	nil	7·37	5·11	1·41	Elec. Dpt.	790,892	1 50
Sunderland ...	158.900	June. 1900	10·92	4 8½	277,240	14,848.958	1.433,463	62.669	36,517	58	26,152	9 43	8.241	8,330	+9,581	5 567	4.014	10·46	6·11	1·01	Elec. Dpt.	1.562 748	1·87
Wallasey... ...	56,500	Mar., 1902	8·48	4 8½	127,949	6.564,493	757,688	35.873	24,980	70	10,893	8·51	4.064	1 618	+5.211	4 500	2.650	11 17	7·91	1·29	Elec. Dpt.	1,243.340	1 63
Warrington ...	80,000	April, 1902	6·42	4 8½	94,563	3,940,305	419,036	16,264	12,012	74	4.252	4·50	3,024	2,011	—783	nil	nil	9·15	6·88	·97	Elec. Dpt.	496,268	1 90
Wolverhampton.	94.200	Mar.. 1902	7·33	3 6	183.840	4 555,435	507,527	23.591	14,911	63	8,680	4 72	5,278	2.293	+1.109	3.475	nil	10·97	7·05	1·22	Elec. Dpt.	773.208	1 66
Yarmouth ...	35.000	June. 1902	3·59	3 6	44,149	1,611,699	222,350	7,876	5,939	75	1,937	4·39	1,570	582	−215	nil	nil	8·33	6·41	1·15	Elec. Dpt.	172.939	2·50

* Includes Repayment Charges.

CARRON

COOKING APPARATUS for Institutions, &c.

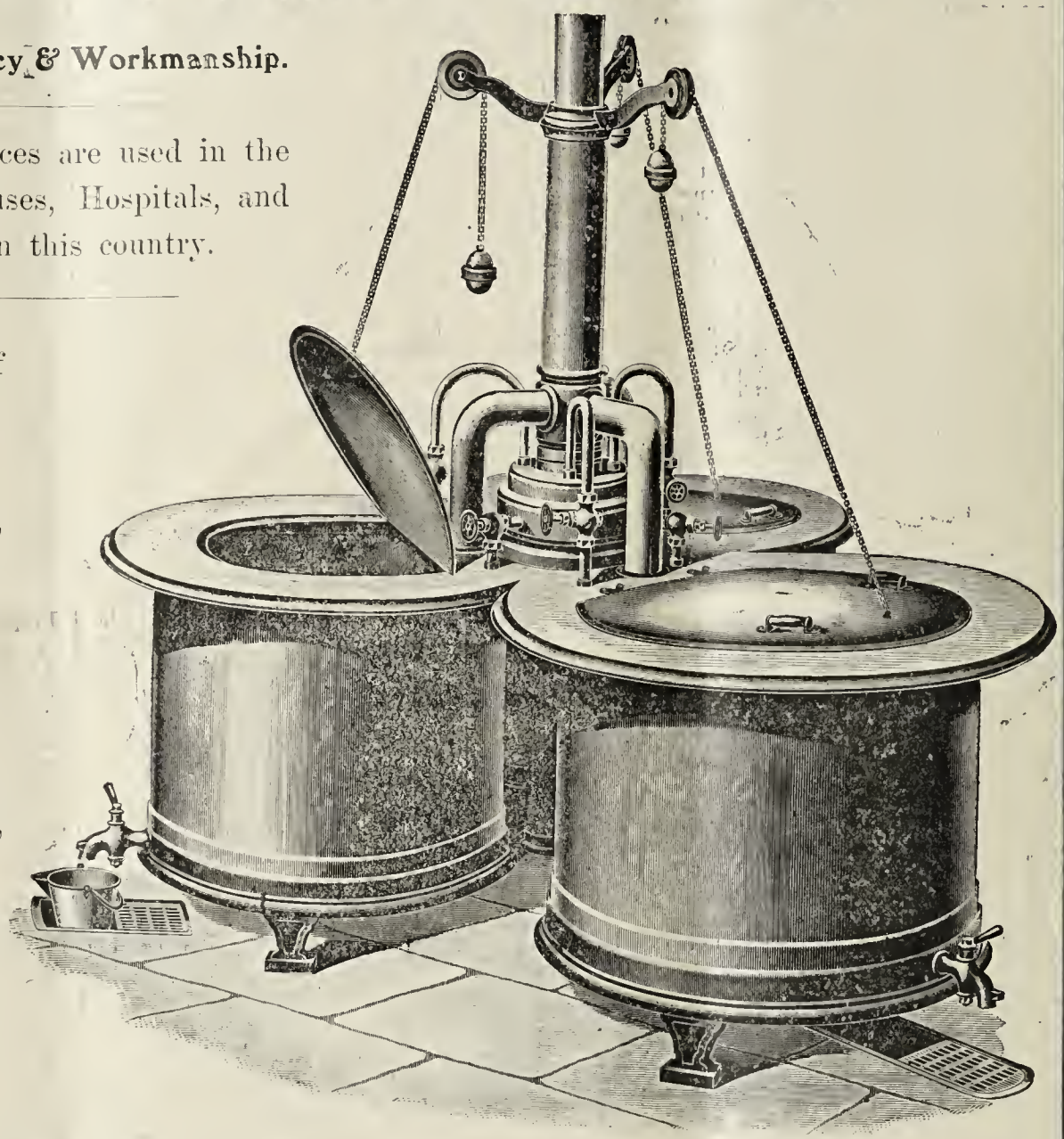
The Standard for Efficiency & Workmanship.

Carron Cooking Appliances are used in the largest Asylums, Workhouses, Hospitals, and other Public Institutions in this country.

Every size and description of
Cooking Ranges,
Soup Boilers,
Potato Steamers,
Roasting Ovens,
Hot Closets,
Fish Kettles,
Beef-tea Extractors,
Milk Sterilizers,
Steam Kettles,
Bain Maries,
Stock Pots, &c., &c.

FOR

COAL, GAS, & STEAM.



Estimates and Drawings for Cooking or Heating Apparatus of every description sent with pleasure.

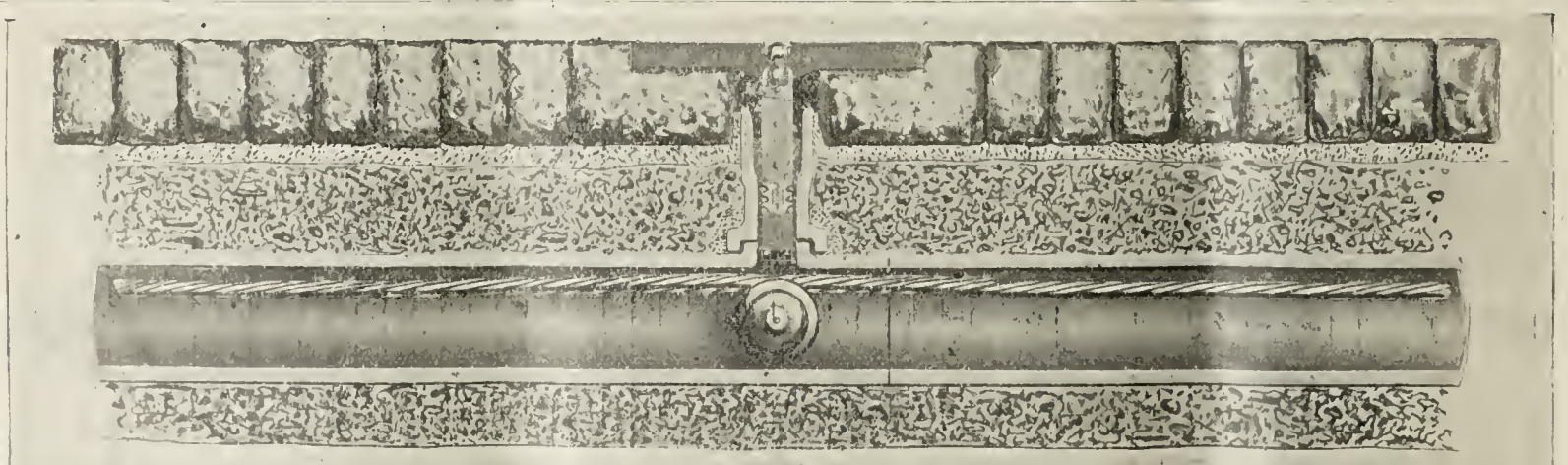
CARRON COMPANY.

Incorporated by Royal Charter 1773.

Works: **CARRON, STIRLINGSHIRE, N.B.**

Manufacturers of Cast Iron Goods of every conceivable description.

AGENCIES & SHOWROOMS:—LONDON (City)—15, Upper Thames Street, E.C.; LONDON (West End)—23, Princes Street, Cavendish Square, W.; LIVERPOOL—30, Red Cross Street; MANCHESTER—24, Brazennose Street; BRISTOL—10, Victoria Street; NEWCASTLE-ON-TYNE—13, Prudhoe Street; GLASGOW—125, Buchanan Street; BIRMINGHAM—Guildhall Buildings, Stephenson Street; DUBLIN—44, Grafton Street; SOUTHAMPTON—Town Quay (The Old French Prison).



LONGITUDINAL SECTION.

The "G.B." SURFACE CONTACT SYSTEM. The Simplest, Best, and Cheapest System.

HAS BEEN ADOPTED BY THE LINCOLN CORPORATION. For Particulars apply to—

The "G.B." SURFACE CONTACT COMPANY, Hamilton House, Bishopsgate St. Without, E.C.

Telegrams: "OPALITE, LONDON." Telephone: 2868 LONDON WALL

TRAMWAY TOPICS.

Assessment of the Electric Tramways at Sunderland: Settlement of the Dispute. British Electric Traction Company's Proposal to Transfer Part of its Undertaking to the Dewsbury Corporation. Motor 'Buses as Feeders to Tramways and Railways. Value of the City of Birmingham Tramways within the Handsworth District. Accrington Corporation Bill for Extensions.

AN amicable arrangement was arrived at on Saturday between the Sunderland Corporation and the Sunderland Assessment Committee in regard to the assessment of the electric tramway undertaking. It will be remembered that at a recent meeting of the Sunderland Town Council it was decided to appeal against the assessment of the Corporation tramways. Accordingly the representatives of the Council visited the Assessment Committee, but as they could not get any satisfaction, they intimated their intention to take legal action at the next Quarter Sessions. At the request of the Assessment Committee, however, a further meeting took place, and there was a re-hearing of the whole subject, with the result that the assessment on ascertained figures and a properly defined basis of reduction—which will afford a settled mode of automatically fixing the assessment from year to year, according to the annual receipts and expenses—were arrived at.

The Dispute.

THE original valuation of the tramways for the year ended March, 1903, to which the Corporation objected, was based upon the receipts for that year, which were £59,284, and the amount of the assessment was £14,129. While the matter has been in dispute, the figures for the year ended March, 1904, were obtained, and they gave the gross receipts as £62,597, and the assessment made on that return was £13,650. When the Corporation appealed to the Assessment Committee, that body offered to reduce the amount to £11,000, but the Corporation was far from satisfied with this offer, and hence the dispute. Now, however, the amount fixed, based upon the figures for the year ending March, 1904, is £7,653, and so the matter is settled without the Corporation having to take legal action. The Corporation also appealed to the Assessment Committee in respect of its electric lighting undertaking, and it is understood that negotiations are proceeding for a like settlement.

Handsworth Tramway Award.

THE Parliamentary Electric Supply and Tramways Committee of the Handsworth District Council reported to the meeting of the Council on Wednesday that Colonel Sir Colin Scott Moncrieff, R.E., K.C.M.G., K.C.S.I., the referee appointed by the Board of Trade to determine the value of the lines, buildings, works, materials, and plant of the City of Birmingham tramways within the Handsworth district, which the Council is desirous of purchasing, by his award (stated in the form of a special case for the opinion of the High Court) adjudges that if, in the opinion of the Court, the Council is required by the Tramways Act to pay for 12 engines and 11 carriages, his award is £14,776; if only required to pay for five engines and five carriages, £11,705; and if not required to pay for any of the engines and carriages, £9,406; the Council to pay the Company's costs of and incident to the reference. The company's solicitors had been informed that the Council would not purchase more than five engines and five carriages, and the committee will therefore ask the Council to direct that the opinion of the High Court be obtained upon the questions raised by the referee's award.

Tramways Conference and Railway Motor 'Buses.

AT the request of the Municipal Tramways Conference, Mr. Whitley, M.P., has given notice to move on the second reading of the Midland Railway Bill, and of other railway bills which contain clauses empowering the establishment of motor 'buses as feeders to their line:—"That it be an instruction to the Committee to whom the Bill is referred that they omit Clause 38 of the Bill, or that they limit the provisions of that clause to omnibuses, coaches, cars, and other road vehicles conveying persons, luggage, parcels, and goods to and from the company's railway stations, and that they make applicable to any such vehicles used for the conveyance of persons the provisions of the Town Police Clauses Act, 1889, and that the local authority be empowered to prescribe, subject to appeal, the route along which such vehicles shall run."

Sheffield and Motor 'Buses.

THE Sheffield City Council has decided on an application to Parliament for power to run motor omnibuses as an extension to the existing tramway system, and to convey passengers, luggage, parcels, and goods. The electric tramcars run from two to three miles from the centre of the town for a penny fare, but there are districts beyond and other parts that are not yet served. It is for the convenience of the residents in these localities that the motor omnibus service is suggested.

London to Dartford.

NEGOTIATIONS have been completed by the Dartford Urban District Council for a loan of £93,000, for the construction of tramways linking the town with London—seventeen miles distant. The terminus is near the site of the great ocean wharf for the port of London sanctioned last week by the Thames Conservancy.

West Riding Schemes.

THE British Electric Traction Company has given notice of its intention to apply to the Board of Trade for approval to the transfer of the portion of the undertaking authorised by the Spen Valley Light Railway Orders, situated in the borough of Dewsbury, to the Dewsbury Corporation, and the remainder of the undertaking to the Yorkshire Woollen District Electric Tramways (Limited). The system extends from Ravensthorpe (via Dewsbury) to Cleckheaton, from Thornhill to Dewsbury, and from Heckmondwike to Dewsbury, and is some 15 miles in length. Notice has been given by the same company, which is promoting, of its intention to apply to the Board of Trade for an extension of the time stipulated for the completion of the Morley and District light railway until March 4, 1907. The scheme proposed is to construct a light railway from east and west Ardsley (through Morley) to Drighlington, to connect with the Spen Valley Tramway. The Wakefield and District Light Railway Company proposes to double its existing (single) line from Wakefield (through Lupset and Horbury) to Ossett.

Proposed Extensions at Accrington.

A BILL promoted by the Corporation of Accrington for, *inter alia*, tramway extensions was before the Police and Sanitary Committee of the House of Commons this week. The Corporation is the owner of tramways running from the centre of the town to Clayton-le-Moors, Church, and Baxenden. These it constructed under an Act passed over twenty years ago. At that time the power to work tramways was not granted to municipalities, and the Corporation leased the lines to the Accrington Tramways Company. This lease expires about two years hence, and possession then reverts to the Corporation. The lines will be converted for electric traction, and worked by the Corporation itself.

Municipal Tramways Amateur Football League

	Plyd.	Won.	Lost.	Drn.	Goals For.	Goals Agst.	Pts.
Sheffield...	... 7	5	1	1	15	4	11
Manchester	... 6	4	2	0	14	8	8
Liverpool..	... 7	2	3	2	8	13	6
Southport.	... 6	2	3	1	7	13	5
Wigan ...	... 8	1	5	2	8	14	2*

* Two points deducted by order of the League Committee, 17th January, 1905.

Result of match played March 9, 1905:—Sheffield, 1; Manchester, 0.

FIREMEN of the Colchester Corporation are insured against accident at fires—£100 if killed, 15s. per week if injured, and £50 for total disablement. The policy was taken out when the brigade was formed, nine years ago.

DICK, KERR & Co., LIMITED,
ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Contractors for Municipal Lighting and Tramway Schemes.

Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.
Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

A GREAT SANITARY DISCOVERY.

A Note of Warning. Standardisation of Disinfectants. The English Article Superior to the Continental. Important Decision of the Chelsea Borough Council. A New Method of Treating Consumptives. Danger from Infection to those who Nurse Consumptives. Cyllin Destroys the Danger. High Medical Testimony to the Virtue of Cyllin, Supplemented by Striking Experiments.

SOME philosophers have described life as a great battle against death. Others have gone further, and defined death as the real beginning of life. At the same time, the most orthodox believers in the continuity of existence are prepared to admit that the world in which we now live is a good and beautiful world, or may be made such; and that it is the duty of mankind, while not dreading death, to maintain an honest and a strong disease-resisting hold upon the life that is.

In ancient times, disease was looked upon not as a misfortune, but as sin, or as the more or less direct result of sin. "Hath this man sinned, or have his parents?" was a question commonly asked concerning an afflicted one. Sin, acquired or hereditary, was regarded as the only explanation of the suffering. We now know that very many of the diseases to which we are liable are not hereditary, although it might be correct, perhaps, still to say that they are the result of sin—the sin of carelessness, or the sin of uncleanliness—on the part of the ignorant or the vicious section of the community. Against such people, and against a host of infinitesimal bacteria which arise we know not how, it is very necessary that we should protect ourselves; and chemical science has, to a certain extent, provided us with the means.

The Trend of Modern Sanitation.

The old proverb, that "Prevention is better than cure," can never lose its appealing force. "He who is whole needs no physician"; and with all respect to the learned professions, we would rather the doctors told us how to keep well, than subject ourselves to their healing ministrations. As a matter of fact, the whole trend of modern sanitation is to *prevent* disease. This is generally achieved by seeing to it that the homes of the people are as far as possible rendered wholesome by efficient drainage, &c. In spite, however, of the best precautions, there always remains the danger of infection. Zymotic diseases may not be on the increase, but they are, nevertheless, of all too frequent occurrence. Moreover, the investigations which were the outcome of Dr. Koch's remarkable pronouncement at the London congress on tuberculosis, a year or two ago, have tended to confirm the suspicion that that most-dreaded of diseases—the disease which destroys about a dozen in every ten thousand of the population of Great Britain each year—is highly infectious.

"Creolin."

For more than a quarter of a century Jeyes' Sanitary Compounds Company, Limited, 64, Cannon-street, E.C., has been engaged in preparing and perfecting certain powerful disinfectants, and it has succeeded in placing before medical practitioners and the public by far the most efficient non-toxic disinfectant which has hitherto been discovered. This disinfectant was, until recently, sold under the name "Creolin."

A Note of Warning.

In December, 1903, however, the eminent chemist, Dr. Samuel Rideal, published an article entitled "Creolin: A Note of Warning," in the course of which he drew attention to the fact that a very great difference exists between the disinfectant value of the cresols, according to their chemical and physical conditions. He pointed out that a disinfectant containing ten per cent. of tri-cresol in emulsion is equivalent in bactericidal efficiency to one containing thirty per cent. in solution when tested against a standard culture of *B. typhosus*.

A Delusive Name.

After having made chemical examinations of the various creolins, and proved that both the English creolin disinfectants and the English creolin medical—Messrs. Jeyes' preparations—are several times superior in efficiency to the creolin sold on the Continent, Dr. Rideal stated that if the name "creolin" was to remain in the literature of the subject, a statement of the germicidal value of the disinfectant in terms of some standard should be insisted on in all cases.

The "Journal of the Royal Army Medical Corps," in commenting upon Dr. Rideal's essay, said:—

"We are forced to conclude that the English creolin (cyllin) is different in its chemical constitution to the creolin sold on the Continent. Much the same results appear if we consider the various creolins in the light of their bactericidal efficiencies. By reducing them to terms of a carbolic acid co-efficient, as against a standard bacterial culture, it was found that while a German 'phenolfrei' creolin has a co-efficient but little over 1.5, and a 'phrenol-haltig' sample one of 3.6, the English cyllin (disinfectant) has a co-efficient of 11 and the preparation called cyllin (medical) a carbolic acid co-efficient of as much as 16. Some experiments which we have made ourselves on the relative values of commercial disinfectants give very similar figures, and we deem it desirable that all medical officers should value these emulsions in terms of carbolic acid equivalents, as expressive of their bactericidal efficiency, rather than on mere chemical characteristics of either phenol or the eresylic acids."

"Cyllin" More Explicit.

Upon having its attention thus drawn to the various inferior produets of different compositions, sold under the name of "Creolin," the Jeyes' Sanitary Compounds Company, Limited, possessing the sole rights of that mark in Great Britain and the Colonies, announced that on and after January 1, 1904, the liquid products until then sold by it as Creolin (disinfectant) and "Creolin" (medical)—the superiority of which Dr. Rideal had tested, as stated above—would be labelled and sold as "Cyllin" and Cyllin (medical). The company, accordingly, registered the word "Cyllin" as its trade mark.

The Need of a Standard.

Previous to the publication of Dr. Rideal's essay, already referred to, this eminent scientist had enhanced his reputation by a paper (prepared in conjunction with Mr. Ainslie Walker), which was read at the Sanitary Congress in the summer of 1903. This classical contribution to modern sanitary science was entitled "The Standardisation of Disinfectants." The authors state that "The steadily-increasing demand for disinfectants, due in great measure to the fact that the general public are acquiring a better knowledge of the true cause of zymotic disease, has so stimulated invention that many chemical products of undoubted value have been introduced in reeent years. But the makers of these genuine articles have to compete with others whose preparations are not only worthless, but actually dangerous, since the use of such products gives rise to a false sense of seeurity. There can be no doubt that the public should know that disinfection—that is, the killing of disease germs—is by no means a simple operation, and that the control of disease by this means should form part of the routine work in every sanitary area under the direction of the medical officer of health. At the same time, it is absolutely necessary that the efficiency of all disinfectants sold as such should have, if not a Government guarantee, at least a maker's warranty which is capable of being checked.

A Standard Established.

"As the medical officer of health can only generally control the area under his jurisdiction, the choice of a disinfectant will at times rest with the medical man in charge, the nurse, or the householder; and they require such directions as will insure freedom from error, and such descriptions of strength as will render the operations as certain as possible. When it is recollected that one source of infectious disease improperly treated is liable to become the source of many others, and that differences of practice in regard to notification obtain in different parts of the kingdom, it will be recognised that this subject is one of more than professional interest." And in regard to the great need for a reliable bacteriological test, they deelare: "It is not too strong a statement to make that no two results obtained by different investigators may be compared with any satisfaction, unless all the details of proeedure have been agreed upon beforehand." They then give the system of standardisation formulated by them, which is now generally aecepted.

This system is, briefly, as follows:—

A laboratory culture of some organism having been mixed with water, one portion of the mixture is exposed to the action of pure phenol and another to that of the germicide to be tested. At frequent intervals, samples are taken from each portion, and an endeavour is made to grow them. The growth or non-growth of these samples—sub-cultures, the bacteriologists eall them—shows the period in which the two germicides have killed or failed to kill the bacilli. The degree of dilution of the disinfectant under test is then varied until these periods approximate, and so a carbolic acid co-efficient is obtained. For instance, Dr. Klein, in April last, exposed a culture of the plague *bacillus* to the action of pure phenol diluted to 1 in 80, and Formalin (which until recently was in favour at the War Offiee) of forty per cent. strength variously diluted. Dr. Klein, in this experiment, took sub-cultures after five, ten, and fifteen minutes' exposure, and found that the phenol at 1 in 80 had reduced the power of growth in five minutes and killed in ten. Formalin at 1 in 100 showed copious growth in each sample; at twice the strength the result was the same, and at 1 in 30 the Formalin effected in fifteen minutes only a slight reduction in growth. Thus the carbolic acid co-efficient was found to be something under 0.37. Numerous experiments made at King's College, London, have shown it to average 0.3.

Cyllin the Germ Killer.

For the benefit of Officers of Health and members of the medical profession who may read this notiee, we append the following table, which demonstrates on absolutely unimpeachable authority the powerful selective baetericidal action of Cyllin:—

Investigator.	Organism.	Carbolic Acid Co-efficient.
Professors Simpson and Hewlett	B. Pestis ...	... 34·0
Professor Klein, F.R.S. ...	Do.	... 30·0
Dr. David Sommerville ...	B. Cholerae (Koch)	... 32·3
Professor Wm. Smith and Dr. David Sommerville...	B. Diphtheriæ .	... 20·0
Professor Klein, F.R.S. ...	B. Tuberculosis	... 11·0
Colonel Firth, R.A.M.C. ...	B. Typhosus ...	... 11·0
Dr. Samuel Rideal... ...	Do. ...	... 11·0
Professor Dunbar and Dr. Kister	Do. ...	... 11·0
Dr. J. C. Thresh ...	Do. ...	... 11·0
Dr. David Sommerville ...	B. Dysenteriæ (Flexner)	... 10·0
Professor Klein, F.R.S. ...	Staph. p. Aureus	... 9·3

An Up-to-Date Council.

The Chelsea Borough Council was, we believe, the first of the municipalities to recognise the importance of standardisation in connection with disinfectants. Its Public Health Committee decided to modify the schedule for the supply of carbolic disinfectants so that the price may be

based upon the germicidal equivalent of the preparation, and not on its volume. In the 2,000 gallons of carbolic acid *or its germicidal equivalent*, 200 gallons of any disinfectant having a guaranteed carbolic acid co-efficient of over ten would represent the same germicidal efficiency, and if the prices quoted were 1s. 6d. per gallon in the former case and 4s. in the latter, there would, obviously, be a considerable saving. "This," said no less an authority than the *Lancet*, "is a step in the right direction, for the real value of a disinfectant is, after all, its germicidal efficiency, just as the value of certain commodities is dependent upon the proportion of active principles which they contain. Thus, the price of chloride of lime used for bleaching purposes is based upon its proportion of active chlorine and the price of a fertiliser upon the percentage of principles (phosphates, nitrates, or ammonia) available for the sustenance of plant life."

The *Public Health Enquirer* commented on the decision of the Chelsea Borough Council as follows:—

"This important addition to the schedule will open the door to all manufacturers of disinfectants, and must necessarily lead not only to greater efficiency, but also to substantial economies. There are on the market many disinfectants, for all of which germ-killing powers are claimed; but only in one case, so far as we are aware, is an absolute guarantee given in regard to the bactericidal power of the product. This is the case in regard to cyllin, which, according to the manufacturers and to eminent sanitary experts, has a carbolic acid co-efficient of over 10.0. In this case, therefore, the tender would be for 100 gallons only, and the advantage to the ratepayer is obvious. Thus, assuming that carbolic acid can be obtained for 1s. per gallon, and cyllin at 4s. per gallon, the nett saving would be £30; or in other words, the cost of performing the work would be £20 in the case of cyllin and £50 in the case of carbolic acid. It is recognised, of course, that to ensure the security of the public all tenders would require to be accompanied by a guarantee of efficiency."

Prof. Fraenkel's Testimony.

Professor Fraenkel, head of the Hygienic Institute of the University of Halle, after a series of experiments, made an important pronouncement in respect to the medical value of cyllin. He reports:—

"It follows clearly from these results that the toxicity of cyllin for animals is relatively limited, and in no way comparable with that which is exerted by, for instance, carbolic acid. Taken in context with the astonishing efficiency of cyllin in the disinfection of the various pathogenic bacteria, this fact must be described as extremely satisfactory. I do not doubt, therefore, that cyllin will obtain general use for the purposes of disinfection as a preparation of extraordinary utility."

Hope for Consumptives.

We must not conclude this article without noticing the highly important medical evidence in regard to satisfactory experiments that have been made with cyllin in the treatment of tuberculosis or consumption. A little more than twelve months ago, Mr. W. Charrott Lodwidge, M.R.C.S., &c., read a paper before the Metropolitan Counties Branch of the British Medical Association, which attracted widespread attention. The title of the paper in question was "Notes on a New Method in the Treatment of Tuberculosis." In the course of this lecture, Dr. Lodwidge said:—

"Sir Lauder Brunton, in his Croonian lectures of 1889, says:—'The most important result which could be obtained by the local use of antiseptics would certainly be the cure of consumption.'

"My experience with the Cyllin Inhalant, which I have the privilege of exhibiting to you to-night, corroborated as it is by that of other observers, distinctly points to the discovery of a drug whose properties closely correspond to those of the antiseptic foreshadowed. The constitution of the new drug, which was isolated last year by Mr. Ainslie Walker, has not yet been published, but I understand it is composed of certain members of a new series of oxidised hydrocarbons. First, as to its non-poisonous nature. Dr. Bousfield, Bacteriologist to Camberwell, gave Cyllin, in 36-minim doses per diem, to a healthy man, with absolutely no constitutional disturbance, but with the result that the B. coli in his fæces were diminished by 97 per cent. in eight days. I have given the drug largely in palatinoids to patients (ranging in age from children of fifteen months to adults) suffering from diarrhœa, with very beneficial results, and in no case has there been any toxic phenomenon. Secondly, as to its bactericidal power. According to Klein, 'Cyllin is at least eleven times more powerful as a disinfectant for the tubercle bacilli of sputum than carbolic acid (phenol).' Again, in *Public Health* of October, 1904, he reports: 'Cyllin, when diluted in the proportion of 1 in 160, acting on tubercular sputum for six hours, is capable of completely disinfecting all B. tuberculosis.'

He then gave a detailed account of some inhalation experiments he had himself conducted.

Cases in Point.

In a case which he described as a third stage of phthisis in a very advanced condition, he used the inhalant more with the object of preventing the spread of infection to the patient's family than with the idea of a curative result. He first used Cyllin Medical, diluted with glycerin and water to 1 in 500, introducing it into the lung in a molecular condition, through an or aerizer, for ten minutes, six times a day, and, finding distinct improvement in the patient's condition, he gradually increased the strength to 1 in 50. Obtaining still greater improvement, but observing that the drug caused a certain amount of pharyngeal and nasal irritation, he decided to try the pure Cyllin Inhalant, which about that time (early in May) had just been produced, and which he had continued to use solely, ever since, with steady improvements in his patients' condition.

The lecturer finally proceeded to read extracts from letters he had received from doctors in different parts of the country, each extract testifying to the efficacy of cyllin in the treatment of consumptive patients.

Evidence of Other Doctors.

Dr. Darlow, of Plaistow, wrote, giving two cases:—

"A. R., Aet. 35, comes of a distinctly phthisical family, two brothers and a sister having died of that disease. Hæmorrhage four or five times during August, and evidence of disease of both apices on examination. About one pint of expectoration during twenty-four hours, with profuse night sweats and nightly rise of temperature to 101 deg. and 102 deg. Began Cyllin in inhalator beginning of September. Expectoration steadily diminished, and improved in quality at the same time, until at present it has almost disappeared. Night sweats gone and appetite improving. Sputum examined after two months' treatment was found to be free from tubercle bacilli."

"M. P., Aet. 60, nursed a son through phthisis, terminating fatally about a year ago. During July, fine crepitations at left apex, and slight hæmorrhage at intervals. Expectoration about three-quarters of pint per diem, of a very offensive character. Began Cyllin in inhalator beginning of August, and from that time on cough rapidly improved and expectoration much diminished. Weight, which had been diminishing, is now steadily increasing, with improved appetite."

Dr. Jocelyn Swan, of Wallington, Surrey, wrote:—

"I have used Cyllin in only one case that came under my notice here, with decidedly satisfactory result. Not only does the bacteriological examination of sputum show a marked reduction in the number of bacilli, but the physical signs have also greatly improved: patient feels better in every way, and has increased in weight."

And other letters were read, all of them reporting in highly favourable terms.

The Remedy on its Trial.

So recently even as Feb. 11 of the current year, there appeared in the *Lancet* the following reference to the subject of these investigations:—

"Mr. W. C. Lodwidge informs us that he has treated eight cases of pulmonary tuberculosis by inhalations of cyllin. Some of the patients were in an advanced stage of the disease. In every case some improvement was obtained, as evidenced by a steady increase in weight, a diminution in the quantity of the sputum, and relief from cough and night sweats. Mr. Lodwidge believes that the drug acts primarily by destroying the pyrogenic organisms, and secondarily by exercising an action on the tubercle bacilli. He has made a careful systematic study of the various drugs which have from time to time been prepared as "inhalants" for the treatment of pulmonary tuberculosis. He has also calculated the relative bactericidal value of some of these drugs when tested against vigorous cultures of the bacillus typhosus. He finds that cyllin is twelve times as powerful as carbolic acid. Further, cyllin may be inhaled without any deleterious results. The number of cases recorded by Mr. Lodwidge is small, but the results which he has obtained warrant a further trial of the remedy and observations carried out on a more elaborate scale than has been as yet accomplished."

To Safeguard the Nurse.

Indeed, instances of the efficacy of Cyllin Inhalant as a disinfectant in cases of consumption have come under our own immediate observation, and from what we have seen and heard we feel confident that this drug is the best safeguard against the danger of infection from tuberculosis, and, therefore, an invaluable boon to those whose duty it is to occupy the heroic but dangerous position of being in constant attendance upon relatives or friends who are dying of the disease.

This, of course, is lay testimony; but it supplements the evidence of the numerous eminent medical and scientific experts to whom we have referred above.

In the Public Interest.

"It is," says *Public Health*, in an able article on the subject, "unnecessary to dwell upon the ease with which it is possible to demonstrate the presence of virulent tubercle bacilli in dust swept from the floors of public-houses, railway carriages, &c. This has been done by various reliable workers, both in this country and abroad—as recently as January, 1904, we took samples of the expectorated matter on the floor of a public bar in London, and submitted them to Professor Klein, who reported that he found typical tubercle bacilli in fifty per cent. of the samples received! Realising the gravity of this source of infection, we then requested Professor Klein to ascertain for us the best practicable method of destroying such tubercle bacilli as might be found on the floors of public-houses, railway carriages, and other public places by the use of a reliable disinfectant."

A Memorable Summary.

We have only to add one more quotation, which, however, is well worthy of the attention of the public. It is the summary of experiments on the disinfection of tubercular sputum just mentioned. These experiments were jointly conducted by Dr. E. Klein (Lecturer on Advanced Bacteriology at the Medical School of St. Bartholomew's Hospital, London) and Dr. Francis J. Allan (Medical Officer of Health for the City of Westminster). The conclusion, it will be seen, is emphatically in favour of cyllin: "It appears (from the experiments), then, that cyllin, when diluted in the proportion of 1 in 160, acting on tubercular sputum for six hours, at room temperature, is capable of completely disinfecting all *B. tuberculosis*. For practical purposes, therefore, it would only be necessary, when working with this disinfectant, to well wash with a mop the floor, presumably containing tubercular bacilli, using a dilution of 1 in 160 (3 ozs. of cyllin—six tablespoonfuls—to each pail of water—three gallons), and to leave the floor thus well moistened for a period of six hours."

WESLEYAN AND GENERAL ASSURANCE SOCIETY.

THE sixty-fourth annual meeting of this society was held at the Grand Hotel, Birmingham, on Tuesday week, Mr. John Field, J.P., the president, in the chair. The report stated that the total number of members and policy-holders at the close of the year was 1,067,586, an increase of 52,033 on the year, after allowing for lapses and death, and the total income was £674,875 0s. 1d. The claims had amounted to £289,144 8s. 7d., which, added to the sum previously paid, gives a total of £3,648,051 11s. 8d. paid since the commencement of the society.

The chairman said the year had been an eventful one, inasmuch as the society had been able to effect a removal from Corporation Street to its new freehold offices in Steelhouse Lane. It was worthy of note that the whole of the papers, books, and documents, of many tons weight, had been removed, with the assistance of the office staff, without any mishap, and without any hindrance to the conduct of the general work of the office. It was gratifying to know that the valuation report published last year had had an appreciable effect on the new business transacted in the ordinary department during the year.

The actuary who prepared the valuation report now submitted was Mr. H. W. Manly, F.I.A., whose report says:—

"The value of the nett liability is £782,660 2s. 0d., which, being deducted from the funds, amounting to £811,544 0s. 4d., leaves a surplus of £28,883 18s. 4d. Out of this sum it is proposed to carry £10,000 to reserve (thus raising the reserve fund to £30,000), to distribute as divisible profit £13,804 4s. 0d., which will provide a reversionary bonus of 30s. per cent. on the sum assured on 21,323 policies, assuring £1,427,781 14s. 3d., and to carry forward £5,079 14s. 4d."

The actuary adds that he considers these results to be excellent, and congratulates the directors and members upon the satisfactory start made with the annual distribution of profits.

PRUDENTIAL ASSURANCE COMPANY, LIMITED.

THE fifty-sixth annual report of the above company is of a highly satisfactory nature, as the following figures prove:—In connection with the ordinary branch, 71,874 policies were issued during the year, assuring the sum of £6,954,650, and producing a new annual premium income of £377,587. The premiums received during the year amounted to £3,969,016, an increase of £154,160 over the year 1903. As regards the industrial branch, the premiums received were £5,979,335, an increase of £132,781.

The total number of policies in force at the end of the year was 15,577,161; their average duration is ten and three-quarter years. The assets of the company, in both branches, as shown in the balance-sheet, amount to the enormous total of £55,359,505, an increase of no less than £4,142,128 over those of 1903.

Mr. Frederick Schooling has, as usual, prepared the valuation report, which confirms and accentuates the very flourishing condition in which the company finds itself at the commencement of a new year. The total surplus of the two branches, as shown by the valuation, is £2,064,514, which is disposed of as follows:—£150,000 has been added to the investments reserve fund of the ordinary branch, and £150,000 has been added to the reserve fund of the industrial branch; £1,202,867 is distributable among the participating policyholders and shareholders, in accordance with the regulations of the company under its special Act of Parliament, leaving £561,647 to be carried forward, namely, £176,249 in the ordinary branch and £385,398 in the industrial branch.

THE TEMPERANCE PERMANENT BUILDING SOCIETY.

THE report of the above society for 1904—the fifty-first annual report—shows that the paid-up share capital has increased by £172,896, and now amounts to £1,352,140. The deposits are reduced by £4,375, and now stand at £264,709.

The advances during the year amounted to £416,973. The sum secured on mortgages at the end of the year was £1,746,391, an increase of £110,154. The total of the advances since the formation of the society has been £9,035,747.

One of the most noticeable features of the report is the large number of small mortgages. Of 5,574 properties in mortgage to the society, no fewer than 4,980 are for sums not exceeding £500, or upwards of 1,900 more small properties than are held by any similar institution in the Kingdom. The properties in possession amount to £2,505.

The nett profit for the year was £66,105, of which £100 was written off the society's offices, and £500 voted to the Clerks' Provident Fund. A dividend of 5½ per cent. on the original shares, and the maximum rate of 4 per cent. on the new shares, absorbed £56,292, and the balance of £9,213 was added to the reserve fund, which now amounts to £109,294. Among the directors of the society are Mr. J. Bamford Slack, M.P., Mr. Douglas Young, F.S.I., Mr. F. W. Dimbleby, J.P., and other gentlemen who are well known for the interest they take in the temperance movement and in other social questions.

Dr. O. Norris, who had for some years occupied the post of medical officer to the Sherburn Rural District Council, died at Sherburn a few days ago, at the age of forty-four. Dr. Norris was a native of Wakefield, and went to Sherburn about seventeen years ago.

"SANALENE"

One Gallon covers from 60 to 70 sq. yds. on a prepared surface.

The Latest Production.

A PERFECT ENAMEL PAINT.

Flows Freely, Hard Wearing, Easily Washed and Polished.

"SANALENE"

BLUE LABEL

For Inside Use.

FOR PRACTICAL WORK BY PRACTICAL USERS.

Supplied in White or Colours, as desired.

For Colour List and Full Particulars, apply to—

ASPINALL'S ENAMEL, Ltd.,
NEW CROSS, LONDON, S.E.

RED LABEL

For Outside Use.

THE SURVEYOR AND CONTRACTOR.

Schemes in Progress and Suggested. Tenders Open. New Inventions for Local Government Enterprises. The Latest Patents.

LONDON UNITED TRAMWAYS.

Particulars of the Contract.

DETAILS are available of the contract which the London United Tramways Company has recently let to Messrs. J. G. White and Company, the well-known contractors. The amount of the contract is about £165,000. The contract comprises two distinct sections. The first is in Kingston, Surbiton, Malden, and Wimbledon districts.

The following are the routes:—Starting from a junction of London Road and Eden Street, the first route goes along Richmond Road as far as King's Road and along King's Road to a terminus at the Kingston Gate of Richmond Park. The second route goes along London Road and Kingston Hill terminating at George Road. The third route starts from a junction with the latter in London Road and goes along Cambridge Road, Kingston Road, Burlington Road, West Barnes Lane, and Coombe Lane, terminating near Raynes Park Station. The fourth route starts at Clarence Street, goes along Eden Street, St. James's Road, Penrhyn Road, Kingston, Surbiton Crescent, Victoria Road, Portsmouth Road, and terminates at Winter's Bridge, Long Ditton The fifth route starts with a junction with the latter in Victoria Road, Surbiton, goes along Victoria Road and Ewell Road, terminating at Red Lion Lane, Tolworth. The total route length of this line is about 10¼ miles, and the length of single track is about 18¾ miles.

The second section is in Hanwell and Brentford, starting from a junction with existing tramways in High Street, Brentford, and then goes along Boston Road, Lower Boston Road, and joins existing tramway in High Street, Hanwell, with another branch going along Boston Road, and joining the same tramway in Broadway, Hanwell. The route length of these lines is about 2⅝ miles, and the length of single track 5⅛ miles.

The type of construction of the track is particularly strong, and consists generally of No. 3 B.S. rails, with cross-girders spaced 9ft. apart throughout, and the joints are supported by anchors of H section, secured to rails with bolts and clips.

The concrete underbed is 6in. thick, finished off with a layer of one inch fine concrete, and over this a floating coat of one inch cement and sand to form bed for wood paving. The paving throughout is of Jarrah wood, finished, in the Kingston section, with an edging of granite setts, while in the Hanwell and Brentford section the margins are entirely of granite setts.

The overhead construction is span-wire throughout, the poles being 33ft. long, and the ornamental character of the remainder of the L.U.T. will be preserved on the new sections. The trolley-wire will be 2/0 B. and S. gauge-grooved copper wire, and will be supported by mechanical ears. The height of the trolley wire above rail-level will be 23ft., which is greater than is usual, owing to special London conditions.

ENGLISH MATHEMATICAL AND DRAWING INSTRUMENTS.

THE victories of peace are often greater and more far-reaching than the victories of war; and although the British nation has, as all the world knows, a glorious military history, its achievements in the field of manufacture have been, perhaps, even more remarkable and satisfactory. The superiority of articles of English make has long been so well-known as to compel competing foreigners to construct their goods upon English models.

No complaint could be made in regard to this were it not for the fact that the foreign articles are nearly always of flimsy and unsubstantial construction. No Englishman complains of competition so long as it is fair and above board, but our enterprising traders do protest, as they have every right to do, against the introduction into the home market of worthless, trashy imitations of English goods.

Perhaps in no class of manufactures is the superiority of English-made goods more evident than in mathematical and drawing instruments. Surveyors, engineers, and draftsmen of every kind, who are particularly qualified to appreciate the value of excellence and accuracy, are practically agreed in their estimate of English instruments, which have been improved to such a degree of perfection that they may now be said, without the faintest shade of exaggeration, to be vastly superior to those manufactured in other countries. From motives of self-interest, therefore, as well as of patriotism, those who wish for true and reliable instruments should place their orders with an English firm.

Mr. A. G. Thornton, Paragon Works, 41, King Street West, Manchester, is a practical manufacturer, who has received various prize medals and awards for the general excellence of his drawing and surveying instruments. He is contractor to his Majesty's Government, and has issued a catalogue (which he supplies post free) giving full details of all improvements and specialities in connection with the trade to date. We understand that Mr. Thornton is prepared to offer to principals of schools, institutions, and academies in search of proper instruments and materials to recommend to students to send, on approval, samples of his specialities, to the end that his claims as to their excellence may be substantiated by actual test. This is a typically British way of trading.

Tenders Wanted.

Ambulance, Leeds Guardians.
April 4.—For the supply of a four-wheeled ambulance, for use at their workhouse and infirmary, Beckett Street. Mr. James H. Ford, Poor Law Offices, South Parade.

Artisans' Dwellings, &c., Chiswick U.D.C.
March 28.—For the erection of the above, and for certain street improvements. Mr. Ernest F. Collins, Clerk of the Council.

Automatic Machines, Ramsgate Corporation.
March 31.—For the privilege of placing and keeping same in various parts of the borough for one year from May 1st, 1905. Mr. E. C. Byrne, Town Clerk, Albion House.

Building, Willesden Guardians.
March 29.—For the erection of a receiving house for children in Acton Lane. Mr. J. Hutton Haylor, Clerk to the Guardians, 329, High Road, Kilburn, N.W.

Building Sites, Stepney Borough Council.
May 1.—Building sites of not less than 16,500ft. super within the borough of Stepney, suitable for the erection of a council chamber and municipal offices. Mr. George W. Clarke, Town Clerk, Municipal Offices, 15, Great Alie Street, Whitechapel, E.

Building, Tetbury Guardians.
March 28.—For alterations and additions at the workhouse. Builders desirous of tendering for this should send in their names not later than the 13th inst. Mr. V. A. Lawson, Architect, 17, Rowcroft, Stroud.

Building, Fulham Borough Council.
March 29.—For the erection of a branch library in Lillie Road. Mr. R. M. Prescott Town Clerk.

Building, Southwark Guardians.
March 30.—For the execution of certain alterations and additions to the medical superintendent's house at their infirmary, East Dulwich Grove, S.E. Mr. Howard C. Jones, John Street West, Blackfriars Road, S.E.

Cable Tramway, Matlock U.D.C.
March 22. — For about 1,967 lineal yards of steel wire tramway cable with Manilla core (3⅛in. in circumference). Mr. James Diggle, Engineer and Surveyor, Town Hall.

Cables, &c., Hornsey Town Council.
March 27.—For the supply of cables, junction-boxes, fuse-boxes, meters, &c. Mr. F. D. Askey, Town Clerk, 99, Southwood Lane, Highgate, N.

Carnegie Free Library, Batley Borough Council.
April 5.—For the masons', joiners' plumbers', plasterers', slaters', painters', heating engineers', and electrical engineers' work respectively in the erection and completion of these buildings. Mr. Jos. Hanson Craik, Town Clerk

Carting, Cheshire County Council.
March 31.—For carting macadam and other materials for the main roads for the year ending 31st March, 1906. Mr. Harry F. Bull, County Surveyor, Chester Castle.

Carting and Haulage, Bucks County Council.
March 29.—For general carting and for haulage of granite from various stations and wharves to the main roads throughout the county during the year ending March 31st, 1906. Mr. R. J. Thomas, County Surveyor, Aylesbury.

Carting, Cannock R.D.C.
March 29.—For carting road material from the stations and wharves on to the roads within their district for the twelve months ending March, 1906. Mr. A. W. Carver, Clerk to the Council.

Cast-Iron Water Mains, Ilfracombe U.D.C.
March 27.—For the supply of about 1,550 yards of 9in., 2,350 yards of 6in, and 7,000 yards of 4in. mains as above, together with special castings, bends, &c. Mr. Oswald M. Prouse, Engineer to the Council.

Condensing Plant, Rathmines U.D.C.
March 27.—Mr. F. P. Fawcett, Clerk to the Council, Town Hall, Rathmines, co. Dublin.

Condenser, Yarmouth Corporation.
March 29.—For supply and delivery of surface condenser, with steam-driven air and circulating pumps. Mr. W. E. Stephens, Town Clerk.

Deal Ends, Islington Guardians.
March 28.—For the supply of 150 fathoms of Baltic yellow deal ends for firewood, to be delivered at the workhouse, Cornwallis Road, Holloway. Mr. Edwin Davey, Clerk to the Guardians, St. John's Road, Upper Holloway, N.

Designs for Municipal Buildings, Lambeth Borough Council.
March 30.—Mr. H. J. Smith, Town Clerk.

Designs for Libraries, Cardiff Corporation.
June 17.—From architects who have been in practice not less than six months as principals in Cardiff, for branch libraries to be erected at Canton and Cathays.

Designs for Libraries, King's Norton U.D.C.
April 26.—Architects resident in or practising within the city of Birmingham may on certain conditions enter into above architectural competition for a library to be erected on the site in Church Hill, King's Norton. Mr. Edwin Docker, Clerk to the Council, 10, Newhall Street, Birmingham.

Dust Vans, &c., Wood Green U.D.C.
March 29.—For the supply of 12 slop vans, 7 dust vans, 5 water vans, and 1 water cart. Mr. J. W. Britton, Clerk of the Council.

Electric Tramcars, Birmingham City Council.
April 4.—For the supply, delivery, and erection of 200 electric tramway cars. Mr. Alfred Baker, 254a, Corporation Street.

Electric Tramcars, Birmingham City Council.
April 4.—For the supply, delivery, and erection of 200 electric tramway cars. See advt. in this issue. Mr. Alfred Baker, General Manager, Tramways Department, 254a, Corporation Street.

Electrical Supplies, Bray (Ireland) U.D.C.
March 20.—Supplies at their electric lighting works for twelve months. Mr. P. MacDonnell, Clerk to the Council, Town Hall.

Forage, Army Service Corps.
March 27.—For the supply of forage and straw for palliasses for military services during six months from May 1, 1905. Officer Commanding, Headquarter Officers, Aldershot.

Furniture, Hammersmith Borough Council.
March 28.—Furniture and fittings for the central library, Brook Green Road, W. Mr. H. Thompson, Town Clerk.

Granite, Cartage, &c., Southgate U.D.C.
March 25.—For the supply of 2,000 tons of granite, carting same, and for supply of various stores up to 31st March, 1906. Mr. W. M. Ellenor, Council Offices, Palmer's Green, N.

Granite and Other Road Material, Gainsborough U.D.C.
March 29. For the supply and delivery of above from time to time during the year ending 31st March, 1906. Mr. Sam W. Parker, Engineer and Surveyor, Council Offices.

Hauling, &c., Bromyard R.D.C.
March 23. For hauling stone and other materials; also for supply of horse hire, machine oil, coal, &c. Mr. R. O. Smith, District Surveyor.

Heating Apparatus, Metropolitan Asylums Board.
April 4.—For hot-water heating apparatus at Gore Farm Upper Hospital, near Dartford, Kent. Mr. T. Duncombe Mann, Clerk to the Board, S.W.

Hospital Wing, Portsmouth Corporation.
March 28.—For constructing, completing, and maintaining in thorough repair a new wing and an extension of the boundary wall at the infectious diseases hospital at Milton. Mr. Alexander Hellard, Town Clerk.

Iron Pipe Sewer, Middleton Corporation.
April 5. For the construction of above. Mr. Frederick Entwhistle, Town Clerk.

Ironmongery, &c., Dorchester Borough Council.
March 29.—For supplying above and for horse hire, repairs to harness, &c. Mr. A. G. Symonds, Town Clerk.

Latrines, Yeovil Borough Council.
March 31.—For sundry alterations to the latrines at the Hendford Schools. Mr. A. Linnett, Clerk to the Education Committee.

Library, Fulham Borough Council.
March 29.—For the erection of a branch library. Mr. R. M. Prescott, Town Clerk.

Library, Whitehaven Town Council.
April 3.—For the various works in connection with the erection of the Carnegie Public Library. The Town Clerk.

Lift Pumps, West Ham Guardians.
March 29.—For the supply, delivery, and fixing of hydraulic lift pumps, air compresser, and connections at their infirmary, Whipps Cross Road, Leytonstone. Mr. Fred. Hilleary, Union Workhouse, Leytonstone, N.E.

Loans, Sunderland Corporation.
Of £50 and upwards, at six months' notice, or for a fixed period. See advt. in last issue. Mr. Haswell Brown, Borough Accountant, Town Hall.

Loans, Islington Borough Council.
The above Council is prepared to receive loans up to £39,080, at 3 per cent., for periods of eighteen months, three years, or five years, at option of lender. See advt. in last issue. Mr. Wm. F. Dewey, Town Clerk, Town Hall.

Lorry Chassis, Glasgow Corporation.
March 23.—For three 1½ ton-lorry chassis, suitable for tower wagons for overhead work. Mr. John Bowers, Town Clerk, City Chambers.

Materials and Stores, Waterloo U.D.C.
March 25.—For the supply of above in various quantities as may be required during the year ending the 31st March, 1906. Mr. John I. Thompson, Clerk of the Council.

Materials, Worsley U.D.C.
April 8.—For the supply of road materials required during the year ending March 31, 1906. Mr. J. Phethean Monks, Law Clerk, Public Offices, Hilton Lane, Walkden.

Materials, Bridlington R.D.C.
March 23.—For the supply of 3,000 tons of whinstone and 1,000 tons of slag. Mr. John B. Simpson, Clerk to the Council.

Materials, Leek U.D.C.
March 24.—For the supply and delivery of various road materials. Mr. W. E. Beacham, Surveyor and Water Engineer.

Materials and Stores, Heywood Corporation.
March 25.—For the supply of flags, kerbs, and various materials, for a period of twelve months ending March 31, 1906. Mr. Geo. G. Bouchier, Town Clerk, Municipal Buildings.

Materials, Oxford Corporation.
March 29.—For the supply of various road materials for two years from the 12th of April next. Mr. Richard Bacon, Town Clerk.

Materials, Team Labour, &c., Clayton-le-Moors U.D.C.
March 27.—For the above as may be required from April 1, 1905, to March 31, 1906, inclusive. Mr. James Smith, Clerk to the Council.

Materials, &c., Sandwich Borough Council.
April 1.—For the supply of 200 tons of 1¼in. broken granite, 40 tons chips, &c. Mr. A. J. Firby, Borough Surveyor.

Materials and Stores, Nuneaton U.D.C.
March 27.—For the supply of above during the twelve months ending the 31st March, 1906. Mr. F. C. Cook, Surveyor to the Council.

Materials, Gravesend Borough Council.
March 30.—For the supply of various road materials, bricks, &c. Mr. H. H. Brown, Town Clerk.

Materials, Gateshead Borough Council.
March 27.—For the supply of various road materials for one year. Mr. William Swinburne, Town Clerk.

Mortuary, Essex County Council.
April 1.—For the erection of a new mortuary building at the Essex County Lunatic Asylum. Dr. Amsden, Asylum, Brentwood.

New School, Poole Borough Council.
March 24.—For the erection of a new elementary school building in Wimborne Road. Mr. Charles Lisby, Education Secretary.

New Bridge, Aberdeen County Council.
April 3.—For the erection of a new bridge, constructed of steel girders and masonry, over the River Bogie, at Smithston, near Gartly. Mr. James Barron, Engineer to the Council.

Painting, Bermondsey Guardians.
April 13.—For painting and other works to certain parts of the interior and the whole of the exterior of the buildings, including outbuildings, at their workhouse, Ladywell, S.E. Mr. E. Pitts Fenton, Guardians' Offices, 283, Tooley Street, S.E.

Paving, &c., Herne Bay U.D.C.
April 5.—For the levelling, paving, &c., of four roads within the district. Mr. Joseph Jubb, Clerk to the Council.

Paving, Islington Borough Council.
March 28.—For paving the carriageways of Packington Street and Newington Green Road with compressed asphalte and part with wood blocks; of Newington Green and St. Paul's Place, from Newington Green Road to the south side of Northampton Park, with compressed asphalte; and part of Nelson Terrace with granite setts. Mr. W. F. Dewey, Town Clerk.

Paving Works, Westminster City Council.
March 23.—For the execution of paving works within their jurisdiction. See advt. in this issue. Mr. John Hunt, Town Clerk.

Plumbing, Belfast Corporation.
March 28.—For plumbing work, &c., in connection with two asylum villas in course of erection at Purdysburn. Mr. Samuel Black, Town Clerk.

Printing, Leyton U.D.C.
March 28.—For general printing for one year and three years respectively. Mr. R. Vincent, Clerk to the Council.

Printing, Stationery, &c., St. Marylebone Council.
March 23.—For printing, books, notepaper, pens, ink, &c. See advt. in last issue. Mr. James Wilson, Town Clerk.

Printing, Derbyshire County Council.
March 25.—For the county printing for a period of three or five years from the 12th April next, according to option. Mr. N. J. Hughes-Hallett, County Offices, St. Mary's Gate, Derby.

Printing, Stationery, &c., East Riding County Council.
March 27.—For the period of three years from May 1, 1905. Mr. John Bickersteth, County Hall, Beverley.

Printing, Stationery, &c., Stepney Borough Council.
March 22.—For the execution of printing and bookbinding, and the supply of stationery, for a period of three years, from the 1st April next. See advt. in this issue. Mr. Geo. W. Clarke, Town Clerk, Municipal Offices, 15, Great Alie Street, Whitechapel, E.

Printing and Stationery, Reading Borough Council.
March 25.—Supply of above for two years from the 1st of April, 1905. Mr. W. S. Clutterbuck, Town Clerk.

Printing and Stationery, Yarmouth Corporation,
March 27.—For the above from 1st May 1905, to 31st March, 1908. Mr. W. Edgar Stephens, Town Clerk.

Printing Stationery, &c., Marylebone Borough Council.
March 23.—For supplying above for a period of three years. See advt. in last issue. Mr. John Wilson, Town Clerk, Town Hall, Marylebone Lane, Oxford Street, W.

Provisions and Stores, Tewkesbury Guardians.
April 3. The above for the use of the workhouse for periods of three and six months respectively. Mr. H. A. Badham, Clerk to the Guardians.

Provisions and Stores, Gloucester County Council.
March 24.—The above in various quantities for the Wotton Asylum. Mr. James Thompson, Clerk to the Committee of Visitors.

Provisions and Stores, Prestwich Guardians.
March 23.—For supply of above during a period of six months, commencing the 27th March, 1905. Mr. Edward W. Ogden, Clerk to the Guardians, Cheetham Hill Road, Manchester.

Provisions and Stores, Yeovil Guardians.
March 24.—For supplying the Union with bread, meat, groceries, drapery, &c., for the ensuing half-year, and raw milk, books, printing, and coffins during the ensuing year. Mr. J. E. Rodber, Clerk to the Guardians.

Provisions, Bovril, Oil, &c., Windsor Guardians.
March 27.—For supplying above, for indoor and outdoor relief, for a period of six months. Mr. Philip Lovegrove, Clerk to the Guardians.

Provisions and Stores, Hammersmith Guardians.
March 21.—For the above for six and twelve months respectively. See advt. in last issue. Mr. J. Lamb, 206, Goldhawk Road, Shepherds Bush, W.

Provisions, Builders' Repairs, &c., Swaffham Guardians.
March 29.—For the supply of above and for repairs at workhouse during the ensuing half-year. Mr. Sydney Matthews, Clerk to the Guardians.

Provisions and Stores, Blandford Guardians.
March 29.—For provisions and all other articles required in the workhouse from the 1st April to the 29th September next; and for printing and stationery from the 1st April to the 30th March, 1906, inclusive. Mr. S. Traill, Clerk to the Union.

Provisions and Stores, Dorking Guardians.
March 27.—For supply of above for 26 weeks and 53 weeks respectively. Mr. Wm. James, Clerk to the Guardians, 35, High Street.

Provisions and Stores, Fylde Guardians.
March 27.—For the supply of the above in various quantities. Mr. Fred. H. Brown, Clerk to the Guardians, Kirkham.

Provisions and Stores, Ulverston Guardians.
March 27.—For the supply of the above in various quantities. Mr. Chas. W. Dean, Clerk to the Guardians.

Purchase of Stable Manure, Hastings Corporation.
April 3.—From their stables at Rock-a-Nore, Silverhill, and Bopeep, for a period of either six or twelve months from April 10th next. Mr. Ben F. Meadows, Town Clerk.

Refuse, &c., Trustees of Southwark Borough Market.
March 29.—For the removal of above. Mr. A. Musgrave, Market Offices, Cathedral Street, S.E.

Road Materials, Malling R.D.C.
March 28. — For 1,700 cubic yards of quartzite, basalt, or granite. Mr. Fredk. J. Allison, Clerk to the Council.

Road Materials and Sutton U.D.C.
March 29.—For the supply of above during the year ending March 31st, 1906. See advt. in last issue. Mr. C. Chambers-Smith, engineer and surveyor to the Council, Municipal Offices.

Road Materials, Team Labour, &c., Gillingham Town Council.
March 25.—The above and various stores for the term of one year, commencing April 1, 1905. Mr. F. C. Boucher, Town Clerk.

Road Materials, Malton U.D.C.
March 25.—For the supply of unbroken and broken whinstone, granite, or other material suitable for the repairs of the roads within their district to March 31st, 1906. Mr. G. S. Cattle, Clerk to the Council, Town Hall.

Road Material, Peterborough City Council.
March 23.—For the supply of broken granite, cement, &c. Mr. J. W. Walshaw, City Surveyor.

Scavenging, Tanfield U.D.C.
March 27.—For the removal of ashpit, privy, and general house refuse for one year, commencing on April 1st next. Mr. George Arkless, Clerk to the Council.

Scavengers' Brooms, &c., Bermondsey Borough Council.
March 23.—For the supply of above. Mr. Fredk. Ryall, Town Clerk.

School, Norfolk County Council.
March 23.—For erection of Sprowston Infants' School. Mr. Chas. J. Brown, Architect and Surveyor, Cathedral Offices, The Close, Norwich.

School, Norfolk County Council.
March 24. For alterations and additions to Swanton Novers School. The Secretary, Norfolk Education Committee, 57, London Street, Norwich.

School, &c., Mountain Ash U.D.C.
April 15.—For the erection of a mixed school and the execution of works connected therewith at Abertaf, Abercynon. Mr. A. Morgan, Director of Education.

Sewer Construction, Glasgow Corporation.
March 28.—For work necessary in connection with above, chiefly within the Burgh of Pollokshaws. Mr. John Bowers, Town Clerk, City Chambers.

Sewage Disposal, Featherstone U.D.C.
March 31.—For the construction of sewage disposal works for the southern watershed of their district. Mr. Charles Lowden, Clerk to the Council, Ropergate, Pontefract.

Sewers, Western Valleys Sewage Board, Newport (Mon.).
April 8.—For the construction of the main outfall sewer, tank sewer, and sea outfall, from Aberbeeg to low-water mark in the Bristol Channel. Mr. T. S. Edwards, Clerk to the Western Valleys (Mon.) Sewage Board, 24, Stow Hill.

Sewerage, Sevenoaks R.D.C.
April 4.—For the construction of a nine-inch stoneware pipe sewer, about 930 yards in length, at Dunton Green. Mr. G. F. Carnell, Clerk of the Council.

Stores, Road Material, &c., Paddington Borough Council.
March 18.—For various works and materials for one year from April 1st, 1905. See advt. in last issue. Mr. A. W. J. Russell, Town Clerk.

Stone, Helmsley R.D.C.
April 13.—For the supply of whinstone and slag for repairing their roads for twelve months. Mr. Robert Pearson, Clerk to the Council.

Stores and Repairs, Sowerby Bridge U.D.C.
March 27.—For various stores for the year ending March 31st, 1906, and for general road repairs and paving. Mr. R. W. Evans, Clerk to the Council, Commercial Bank Buildings, Halifax.

Street Works, Alderley Edge U.D.C.
March 25.—For works in connection with the forming, kerbing, channelling, macadamising, and otherwise making good a portion of Clifton Street. Mr. Walter Cobbett, Clerk of the Council.

Swimming Baths, Goole U.D.C.
April 3.—For the various works required in erection of public swimming-baths. Mr. J. W. Johnson, Clerk to the Council.

Tank, Rushworth U.D.C.
April 1.—For the construction of a concrete service tank (56,000 gallons) for the Council's waterworks. Mr. Joseph Walshaw, Crown Street Chambers, Halifax.

Tea, Chelmsford Guardians.
March 25.—For the supply of 1,000 lbs. at 1s. 3d. per lb. Mr. W. W. Duffield, Clerk to the Guardians, 96, High Street.

Tramways, Aston Manor Corporation.
March 24.—For the reconstruction of existing tramways in their district and the construction of other works in connection therewith. See advt. in last issue. Mr. John Ansell, Town Clerk.

Waterworks, Cardiff Corporation.
April 6.—For the erection and building of a filter-house and meter-house at the "Heath" filter beds, near Cardiff. Mr. J. L. Wheatley, Town Clerk.

Patents of the Week.

BY A CHARTERED PATENT AGENT.

Out of 584 patents applied for during the week ended March 11th, the following are selected as being likely to be of interest to our readers:—

4599. Skelton. Improved means or apparatus for flushing sewers, also adapted for drawing off storm water.
4600. Cooley. An improved method of key and dowelling wood-block floors and pavements.
4658. Warwick. Improvements in and relating to aquariums and fountains.
4701. Brown and Crosta. Improvements in tramway rails, points, and crossings.
4774. Coverstone. Improvements in light towers.
4801. Mountain, Gibson, and Head. Improvements in obstruction removers, or life-guards, for electric tramcars and like vehicles.
4806. White. Improvements in syphon flushing cisterns, and in the closets used in conjunction therewith.
4809. Grant. Single-wheel braking gear and levers for tramway cars.
4827. Bowden and Cronkshaw. Improvements in trolley poles for electric tramway vehicles.
4855. Taylor and Archer. Improvements in anchor appliances for tramway rails.
4878. The British Thomson-Houston Co., Ltd., and Wedmore. Improvements in and relating to electric distribution system, and controlling apparatus therefor.
4923. Rhodes. Improvements appertaining to fire extingnishers.
4929. Lawrence. Graduated adjustable ball valve arrangements for flushing cisterns and water tanks (to regulate supply and prevent overflows).
4953. Youlten. Improvements in refuse machines.
4977. Wells. Improvements in reinforced concrete flooring.
4980. Travis. Improvements in the purification of sewage, and other foul or impure waters, and in apparatus therefor.
4986. Potter. Improvements in, and relating to, means for ascertaining the depth from the surface of water in wells, borings, and for similar purposes.
4999. McNamara. Improvements relating to covered tipping, dust, and other carts.
5006. Wright. An improved automatic extincteur and heat alarm.
5007. Wright. An improved extincteur, sprinkler, and heat alarm.
5010. Cross. Improvements in apparatus for controlling and operating the points of electric railways and tramways.
5018. Ellis. An adjustable cap and washer for connecting outlet pipes to flushing cisterns, or other vessels, without screwing or soldering.
5025. Fitton. Improved machinery for sawing stone, slate, granite, marble, and the like.
5057. Verschuren. A new or improved combined street-watering, sweeping, and collecting vehicle.
5059. Mascord. Improvements relating to the application and distribution of electric motive power, particularly for use in starting machinery and for similar purposes.
5073. Nalder Bros. and Thompson, Ltd., and Harris. Improvements in or connected with means for automatically breaking an electric circuit in the event of a leakage to earth.
5078. Thompson. Improved apparatus for cleaning streets, roads, and the like.
5125. Pratt. Corrugated and sheet iron cutters.
5130. Prost and Michery. The manufacture of new uninflammable materials.
5146. De Mollins. Improvements in templates for use in the construction of arches, vaults, and the like.
5153. Smart, Junior. Improved construction of apparatus for preparing and mixing tar, and stones for use in tar paving.
5157. Dennis and Filer. Scaffold bracket.

Appointments Vacant.

Assistant Prosecuting Solicitor, Liverpool Corporation.
March 21.—To fill above office and assist generally in work of Town Clerk's Department; salary £500 per annum. See advt. in last issue. Mr. Edward R. Pickmere, Town Clerk.

Assistant Matron, The Morley House Convalescent Home, Cliffe.
March 20.—Salary £30, with board, lodging, &c. See advt. in this issue. Mr. W. Wood, 13 and 14, King Street, Cheapside.

Chief of Fire Brigade, Bromley (Kent) Borough Council.
March 25.—Salary £117 per annum, with quarters at fire station, coal, gas, and uniform. See advt. in this issue. Mr. Fred. H. Norman, Town Clerk, Municipal Offices.

Clerk, Swindon Corporation.
March 25. — Temporary appointment in town clerk's department for a period of about six months; wages £1 per week. Mr. Robert Hilton, Town Clerk.

Head Master, Glamorgan County Council.
For the post of head master of the Tondu Council school. Salary £200 per annum. Mr. John James, M.A., Ph.D., Education Department, Westgate Street, Cardiff.

Inspectors, London County Council.
April 1.—Four divisional inspectors, salary £600 a year, rising to £800; one art inspector, salary £400 a year, rising to £500; one inspector of wood and metal work, salary £400, rising to £500; one inspector of women's technical classes, salary £300 a year, rising to £400. Mr. G. L. Gomme, Clerk of the Council, Spring Gardens, S.W.

Inspector of Midwives, Norfolk County Council.
March 23.—Must be duly qualified nurse and registered midwife; salary £100 a year and travelling expenses. Mr. G. Christopher Davies, 11, Prince of Wales' Road, Norwich

Inspector of Nuisances, Tonbridge U.D.C.
March 23. — Appointment for one year only. Applicant must have passed the examination of the Sanitary Institute; salary £105 per annum. Mr. Arthur H. Neve, Clerk to the Council.

Inspector of Weights and Measures, Preston Corporation.
March 27.—Wages 35s. per week. Mr. Henry Hamer, Town Clerk.

Labour Master, Chesterfield Guardians.
March 21.—Salary £30 per annum, rising to £35, with board and washing. Mr. R. F. Hartwright, Clerk to the Guardians.

Lecturer in Civil Engineering, Leeds University.
March 25.—Stipend £300 per annum. The Registrar of the University.

Master and Matron, Wheatenhurst Guardians.
March 22.—For the workhouse at Eastington, Stonehouse, Gloucestershire; applicants to be between 28 and 45; salaries, master £42, matron £32 per annum, with rations, washing, and furnished apartments. Mr. R. E. Stuart, Clerk to the Guardians, Bedford Street, Stroud.

Medical Officers, West Bromwich Guardians.
March 31.—Two district medical officers, one for the Handsworth No. 1 District and the other for the Handsworth No. 2 Districts, salary £70 per annum. Mr. H. Ward, Clerk to the Guardians.

APPOINTMENTS VACANT
(Continued.)

Assistant House and Drill Mistress, Poplar Guardians.
March 27. For their schools, Forest Lane, Forest Gate; salary £30 per annum, rising to £35, with residential allowance. Mr. G. H. Lough, Clerk to the Guardians.

Assistant Nurse, Bromley Guardians.
April 3.—For their workhouse at Farnborough, Kent; salary £23 per annum, rising to £28, with uniform, residence, rations, washing, and an optional allowance of £3 18s. per annum in lieu of beer. Mr. Edward Haslehurst, Clerk to the Guardians.

Assistant Nurse, Swindon Guardians.
March 28.—For their workhouse infirmary, Stratton, St. Margaret; salary £30 per annum, with apartments, rations, and indoor uniform. Mr. John P. Kirby, Clerk to the Guardians.

Assistant, Petworth Guardians.
March 27.—As female assistant in the workhouse; salary £18 per annum, inclusive of allowance for beer, with board, lodging, and washing. Mr. Ernest H. Staffurth, Clerk to the Guardians.

Assistant Schoolmaster, Islington Guardians.
March 27.—Trained and certificated, for a mixed standard 5 and 6 school; salary £102, rising to £112. Head Master, St. Mary's Parish Schools, Hornsey Road, Holloway, N.

Caretaker and Nurse, Undercliff Isolation Hospital.
March 22. Joint salary £1 per week, with house and fuel free, and a weekly allowance of 5s. for assistance. Mr. Robert M. Barr, Clerk to the Committee, Town Hall, Ventnor.

Clerk, Salop County Council.
March 27.—In the County Finance Department: salary £100 per annum. Mr. W. Baxter, Shire Hall, Shrewsbury.

Female Night Attendant, West Ham Guardians.
March 29. For their Convalescent Home at Margate; salary £20 per annum, together with uniform and the usual residential allowances. Mr. Fred. E. Hilleary, Clerk to the Guardians.

House Mother, Epsom Guardians.
March 28.—As working house mother for the Girls' Home at the Union; inclusive salary £27 10s., rising to £32. Mr. W. O. Reader, Clerk to the Guardians.

Junior Assistant Medical Officer, London County Council.
March 22.—For the London County Asylum, Coulsdon, Surrey; salary £150 per annum, with board, furnished apartments, and washing; candidates must not exceed 30 years of age, and must be duly registered and qualified to practise both in medicine and surgery in England. Mr. H. F. Keene, Clerk of the Asylums Committee, 6, Waterloo Place, S.W.

Male Night Attendant, West Ham Guardians.
March 29.—For the lunatic ward at the Infirmary, Leytonstone, as head male lunatic attendant for night duty; salary 28s. per week, with rations and uniform. Mr. Fred. E. Hilleary, Clerk to the Guardians.

Male Attendant, Brentford Guardians.
March 21.—For the workhouse of the Union, as attendant on the aged, infirm, and imbecile male inmates; salary £35 per annum, with board, lodging, washing, and uniform, and £3 per annum in lieu of beer. Mr. William Stephens, Clerk to the Guardians, Isleworth, W.

Master and Matron, Paddington Workhouse.
March 18.—Salaries £120 and £60 respectively. Mr. Henry F. Aveling, Clerk to the Guardians, 313-319, Harrow Road, W.

Master and Matron, Hartismere Guardians.
March 25.—Candidates must be man and wife, under the ages of 40 years; salary of master £55, and of matron £35.

Master of Workhouse, Elham Guardians.
March 23.—Temporary appointment as above for their workhouse at Lyminge, near Folkestone, until a permanent appointment is made; salary £65 per annum, with rations and furnished apartments. Mr. R. Lonegan, Clerk to the Guardians

Nurse, Brighton Guardians.
March 23. For alternate day and night duty in the chronic and infirm wards; salary £25 per annum, rising to £28, with rations, washing, lodging, and indoor uniform. Mr. B. Burfield, Clerk to the Guardians.

Nurses, West Ham Guardians.
March 29.—Two for the workhouse infirmary, Leytonstone; salary £25 per annum, with uniform, and the usual residential allowances in each case. Mr. Fred. E. Hilleary, Clerk to the Guardians, Leytonstone, N.E.

Nurse, Monmouth Guardians.
March 21.—Age between 25 and 35; salary £30 per annum and the usual officer's rations, valued at £40 per annum, and also an allowance of £2 10s. in lieu of beer. Mr. T. A. Williams, Clerk to the Guardians.

Nurse, Llanelly Guardians.
March 21.—At the workhouse infirmary; salary £25 per annum, with apartments, rations, and washing. Mr. D. E. Edwards, Clerk to the Guardians.

Porter, Milton Guardians.
March 21.—To act as superintendent of male vagrants at the workhouse; salary £30 per annum, and £4 in lieu of beer, with lodging, rations, and washing. Mr. E. Cecil Harris, Clerk to the Guardians.

Rating Clerk, Kensington Borough Council.
March 29.—As assistant in the Borough Surveyor's department; commencing salary £110 per annum, rising to £150. See advt. in this issue. Mr. Wm. Chambers Leete, Town Clerk.

Relieving Officer, Bristol Guardians.
March 23.—For district No. 6, in an approved position, at which he will be required to reside. Salary £100 per annum, rising to £145. Mr. J. J. Simpson, Clerk to the Guardians, St. Peter's Hospital.

Road Foreman, Birmingham City Council.
March 27.—For the appointment of three in the City surveyor's department; wages 40s. per week, rising to 45s. Mr. John Price, City Engineer and Surveyor, The Council House.

Road Foreman, Walsall R.D.C.
April 4.—Applicants not to exceed 45 years of age. Salary 26s. per week. Mr. W. P. Young, District Surveyor, Rushall.

Second Assistant Overseer, Marlow U.D.C.
March 27.—Salary £34 per annum. Mr. A. Stone, High Street.

Solicitor's Clerk, Thames Conservancy.
March 25.—For the post of second clerk in their solicitor's office; candidates must be admitted solicitors, and not over 30 years of age; salary £250 per annum to commence. Mr. R. Philipson, Secretary, Victoria Embankment, E.C.

Stoker, Elham Guardians.
March 23.—Salary £26 per annum, with usual rations and apartments. Mr. R. Lonergan, 11, Cheriton Place, Folkestone.

Woman Health Visitor, Birmingham City Council.
March 25.—Salary 25s. per week, rising to 30s. Mr. John Robertson, M.D., Medical Officer for Health, The Council House.

TENDERS WANTED
(Continued.)

Blinds, Plymouth Education Authority.
March 29. For the supply of 30 blinds to the Technical School. Mr. E. Chandler Cook, 18, Princess Square.

Building, Ebbw Vale U.D.C.
April 4. For the work of erecting a caretaker's house, with boundary wall and outbuildings. Mr. Tho. Hughes, Clerk to the Council.

Concession for Sale of Salis Water, Bath Corporation.
April 8. For the concession (which will extend over a long period of years) of above, and exclusive rights connected with the aeration and sale, in aerated form, of the mineral water issuing from the hot springs of Bath. Mr. Fredk. D. Wardle, Town Clerk.

Materials, &c., Chatham Town Council.
March 30.—For the supply of 2,150 tons of broken granite or other hard stone.

Materials, &c., East Ham Corporation.
March 25.—For various supplies and for cleaning windows, &c. See advt. in this issue. Mr. C. E. Wilson, Town Clerk.

Materials, East Grinstead U.D.C.
March 25. For 700 cubic yards 1½in. Quenast granite, 30 tons granite screenings, 200 cubic yards 2in. Kentish ragstone, 1,000 yards hand-picked surface flints, and 500 cubic yards rubble, to be delivered at East Grinstead railway station. Mr. W. E. Woollam, Engineer and Surveyor, London Road.

Materials, Milnrow U.D.C.
March 28.—For supply of setts, kerbs, flags, granite, limestone, macadam, and printing, posting, stationery, &c., for twelve months. Mr. W. H. Foster, Clerk to the Council.

Materials, Norden U.D.C.
March 24.—For supply of flags, setts, kerbs, and macadam. The Chairman of the Council.

Milk, Steyning Guardians.
March 21.—For about 9,830 gallons, for 27 weeks, from March 28. Mr. Edward Cripps, Clerk to the Guardians, New Shoreham.

Provisions, Dundee Parish Council.
March 21.—For supplying the combination poorhouses for the period from 16th April to 15th October next with oatmeal (of Scotch-grown oats), good household bread, beef, and mutton, &c. Mr. James Kyd, Inspector and Clerk, Parish Council Chambers.

Provisions and Stores, Keynsham Guardians.
March 23.—For the supply of above in various quantities for six months and twelve months respectively. Mr. Charles Martin, Clerk to the Guardians.

Provisions and Stores, &c., Cuckfield Guardians.
March 23.—For supplying workhouse with groceries, drapery, various stores, &c., for 27 weeks from March 31; and for hair cutting and shaving for same period. Mr. Edward Waugh, Clerk, Hayward's Heath.

Printing, &c., Southport Corporation.
March 24.—Printing and stationery for three years, commencing April 1, for the Finance Committee. Town Clerk.

Road Material, &c., Caerphilly Guardians.
March 21.—For supply of broken limestone, &c., also scavenging, from 1st April to 31st March, 1906.

SUBSCRIPTION FORM FOR THE "MUNICIPAL JOURNAL."

*Please send me weekly for*_____*months the* MUNICIPAL JOURNAL,

*for which I enclose*_____

*Name*_____

*Address*_____

Cheques and Postal Orders to be made payable to Edward Lloyd, Limited, 12, Salisbury Square, London, E.C.

TERMS POST FREE FOR THE UNITED KINGDOM.

Three Months . . 2s. 5d. | Six Months . . 4s. 9d. | Twelve Months . . 9s. 6d.

ABROAD.

Six Months . . . . . 6s. 6d. | Twelve Months . . . . . 13s.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
Limmer Asphalte Paving Co., Ltd.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
Galloways Ltd.,
Manchester.

CARTOONS.
Specialists in Photo.-Litho,
Photo-Copies, and Sun Prints,
Vacher & Sons. Westminster.

CONDUITS.
The Conduit and Insulation Co., Ltd.,
Riverside Road,
Summers Town, S.W.

CONDUITS.
Simplex Steel Conduit Co., Ltd.,
80, Digbeth, Birmingham.

CONDUIT.
The New Brotherton Tube Co., Ltd.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. Summerscales & Sons, Ltd.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
Horsfall Destructor Co., Ltd.,
Leeds.

DESTRUCTORS.
Meldrum Bros.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. Defries & Sons, Ltd.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
British Thomson-Houston Co., Ltd.,
Rugby.

ELECTRIC LIGHTING.
National Electric Construction Co.,
Ltd.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
British Thomson-Houston Co., Ltd.,
Rugby.

EXPANDED METAL.
New Expanded Metal Co.,
York Mansion, York Street,
Westminster.

FLOORING.
Acme Flooring & Paving Co, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GARDEN FURNITURE.
S. Clark & Co.,
Compton Works, Canonbury Road, N.

GAS AND WATER ENGINES.
James Milne and Son, Ltd.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
Preston Granite Concrete Co., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
Acme Flooring & Paving Co. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London, N.E.

LAUNDRY MACHINERY.
W. Summerscales & Sons, Ltd.,
Phœnix Foundry, Keighley.

MANTLES.
Vivid Incandescent Mantle Co.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
Ward & Maconie.
15, Hanover Street, London, W.

PAVING.
Acme Flooring & Paving Co. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
Robt. J. Cook & Hammond, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

SANITARY FLOOR POLISH.
Ronuk, Limited,
Portslade, near Brighton.

STAIR TREADS.
Wm. Gooding,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
Ransomes, Sims & Jefferies, Ltd.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
Wm. Griffiths and Co., Ltd.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
The British L. M. Ericsson Mfg. Co., Ltd.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
The C.A.S. Punch & Ticket Co., Ltd.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
Ticket Punch & Register Company,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
The Hardy Patent Pick Company,
Sheffield.

TRAMWAYS.
Dick, Kerr & Co., Ltd.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. White & Co., Ltd.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
Miss Maude Gatliffe,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
James Keith & Blackman Co., Ltd.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
William Boby,
Salisbury House,
London Wall, London, E.C.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION

IS FAR IN EXCESS

OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

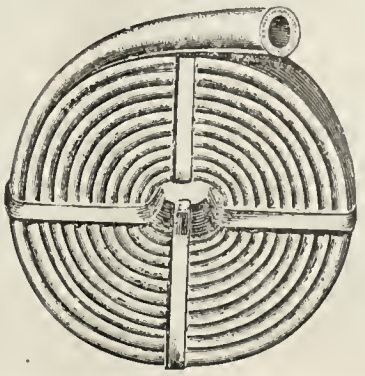
For rates, address—Manager, Municipal Journal 12, Salisbury Square, London.

SHEATH BROTHERS,

India Rubber Hose,

SUCTION & DELIVERY FOR ALL PURPOSES.

BOROUGH COUNCILS AND RAILWAY COMPANIES.

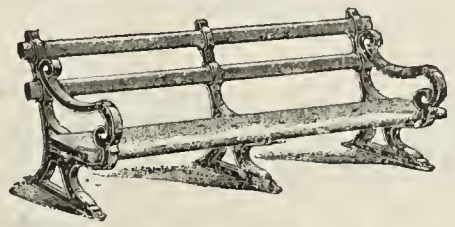


WASHING URINALS AND FLUSHING SEWERS.

87, CITY ROAD, LONDON, E.C.

OUTDOOR SEATS

CHAIRS, Etc.

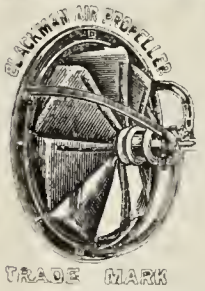


S. CLARK & CO., COMPTON WORKS,

Canonbury Road, Highbury Road, London, N.

Contractors to the London County Council, the Glasgow Corporation, etc., etc.

BLACKMAN



ELECTRIC FANS.

GOLD MEDAL

PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.

27, FARRINGDON AVENUE, E.C.

Works—HOLLOWAY, N., and at ARBROATH.

PHENOZONE

SOAP

Has been proved to be the most efficient Cleanser for Mosaic and Tesselated Pavements, Marble Floors, Swimming and Slipper Baths, &c., after several years' use in numerous Public Baths, Electricity Stations and other Establishments.

"PHENOZONE SOAP," being in powder, is easy to use; it is also a strong, disinfectant.

SAMPLES FREE.

PHENOZONE SOAP CO.,

Wandsworth, London, S.W.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM

Edited by ROBERT BLATCHFORD.

You should read **"THE CLARION"** for reliable information as to

MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thonght and new politics of the 20th Centnry,

You Mnst Read **"THE CLARION."**

Send for specimen copy to **"THE CLARION"** Office,

72, FLEET STREET, LONDON, E.C.

IDRIS ROYAL MINERAL WATERS

The Purest and Best.

IDRIS & CO., Ltd., Camden Town, LONDON, N.W.; And at LIVERPOOL, SOUTHAMPTON, and CANTERBURY.

EQUIFEX DISINFECTORS

SATURATED STEAM (Patent)

Adopted by the Metropolitan Asylums Board for the Brook Hospital; H.M. War Office for the ROYAL VICTORIA HOSPITAL, NETLEY, and by the Governments of India, Victoria, New South Wales, &c.; and the recent Disinfection Stations of the Boroughs of Lambeth, Fulham, Battersea, Brighton, &c., &c.

Rapidity in Operation. Absolute Immunity from Damage by Scorching. Economy in Fuel. Automatic Control and Record of the Work Done.

The only apparatus complying with the recommendations of the International Sanitary Congress, Buda-Pesth, 1894. Only Medal for Steam Disinfectors, Sanitary Institute Congresse, and highest awards wherever exhibited. Over 1,200 in actual use in all parts of the world.

SPRAY DISINFECTORS, for ROOMS, &c., reduces to a minimum the disturbance of Inmates. Cost a fraction of the time and expense required in use of SO_2, and disinfect with certainty. THOUSANDS IN ACTUAL USE.

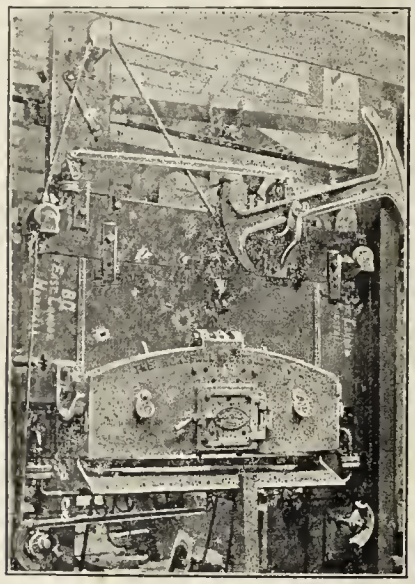
THE PASTEUR FILTER

The only Filter awarded Grand Prix Paris, 1900.

OFFICIAL GOVERNMENT STATEMENT.

"Wherever the Pasteur Filter has been applied Typhoid Fever has disappeared.'

J. DEFRIES & SONS, Ltd., 146 & 147, HOUNDSDITCH, LONDON, E.C.



Portion of Plant for Bloemfontein, South Africa.

Silver Medals Sanitary Institute of Great Britain, 1896, 1902 and 1903.

Gold Medal Brussels Exhibition, 1897.

THE

HORSFALL DESTRUCTOR Co., Ld.

LEEDS,

AND

19, OLD QUEEN STREET, WESTMINSTER, S.W.

Telegrams: {"DESTRUCTOR, LEEDS" / "DESTRUCTOR, LONDON"} A B C and Lieber's Standard Codes used.

Telephone: {LEEDS No. 2006 Central. / LONDON No. 263 Victoria (G.P.O.)}

TEMPERANCE PERMANENT

BUILDING SOCIETY,

4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS

For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager.

BIRKBECK BANK

ESTABLISHED 1851.

$2\frac{1}{2}$ per cent. INTEREST

allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST

allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.

STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C.

PEARL ASSURANCE CO.,

LIMITED.

Chief Offices—London Bridge, City, E.C.

Annual Income	£1,382,000
Funds Increased during year 1904 by ...	£352,000
Claims Paid	£4,263,000

Additional representatives wanted.

P. J. FOLEY, Managing Director.

PATENTS FOR SALE

(ENGLISH AND GERMAN).

One for utilization of the Tide for Motive Power; also patent for Improved Road Paving, or will make other arrangements with any financial gentleman to float a company or syndicate, etc. Circulars containing full particulars will be forwarded by post on application to A. W. Moore, 12, Chatham Place, Hackney, N.E.

NOW READY. PRICE 3s. 6d. POST FREE, 3s. 11d. NOW READY.

THE MUNICIPAL YEAR BOOK for 1905.

OFFICIALLY REVISED—IMPROVED AND EXTENDED.

LONDON: EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, FLEET STREET, E.C.

Printed and Published by Edward Lloyd, Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE MUNICIPAL JOURNAL.

No. 634.—Vol. XIV. FRIDAY, MARCH 24, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. TWOPENCE.

CONTENTS.

	PAGE
EAST HAM TECHNICAL COLLEGE	257
MUNICIPAL LOANS—Part I. ...	259
OUR PRIZE ESSAYS—III.	261
CORRESPONDENCE :—	
Telephone Purchase (By Mr. A. R. Bennett, M.I.E.E.)	276
"Blackening of Consumers' Lamps" (By Mr. Horace Boot)	277
PERSONAL CLEANSING	263
L.C.C. AS SCHOOLMASTER... ...	264
THE HOUSING PROBLEM (By Mr. Budgett Meakin)	265
ELECTRICITY SUPPLY IN LONDON...	266
MUNICIPAL TRADING	267
NOTES AND ANSWERS	268
NOTES AND COMMENTS :—	
"Reform" by Resolution; A Funny Move; The Government Attitude ...	271
Municipal Milk Legislation; Trading at Leicester; Housing in Rural Districts...	272
POOR LAW OUTLOOK	273
THE PAUPER CHILD—Part II. (By Mrs. Barnett)	274
NEWCASTLE COTTAGE HOMES.	275
ELECTRICITY SUPPLY	277
TRAMWAY TOPICS	279
TRAMWAY ANALYSES	281
THE SURVEYOR AND CONTRACTOR	284 &c.

Official Advertisements.

MUNICIPAL COUNCIL OF THE CITY OF SYDNEY, NEW SOUTH WALES.

REFUSE DESTRUCTOR AND FLAG-MAKING PLANT.

THE Municipal Council of the City of Sydney, New South Wales, invite TENDERS for the Supply and Erection of a six-cell REFUSE DESTRUCTOR, and for a FLAG-MAKING PLANT, at Moore Park, within the City of Sydney, New South Wales.

Conditions of Contract, Specifications, and Tender Forms may be obtained on application to the Acting Agent-General for the State of New South Wales, Victoria Street, Westminster, S.W.

Tenders will be received up to TUESDAY, 30th May, 1905, addressed to the Town Clerk, Town Hall, Sydney, New South Wales, endorsed, "Tenders for Destructor and Flag Plant." THOMAS H. NESBITT,
Town Clerk's Room, Town Clerk.
Town Hall, Sydney,
9th February, 1905.

Official Advertisements.

THE CORPORATION OF BLOEMFONTEIN.

APPOINTMENT OF CHIEF AUDITOR.

THE undersigned are authorised to receive from gentlemen, not over 40 years of age, APPLICATIONS in detail for the above APPOINTMENT.

The Candidates must be Chartered Accountants, with Municipal experience.

The duties of the office are to audit continuously the accounts of the various Municipal Department, to see that the accounts due to the Council are punctually rendered and collected, to compare the cost of works executed with the estimates, and to make returns, prepare statistics, and generally carry out what may be required on all financial matters.

The Officer appointed will be required to devote the whole of his time to the duties of the office, and to enter into an agreement to remain in the service of the Corporation for a period of not less than three years, dating from arrival at Bloemfontein.

The salary to be paid is £600 per annum.

Canvassing, personally or otherwise, will disqualify any candidate.

There is no special form of application. Each candidate is required to state (in addition to his professional status), his age last birthday, to set out the appointments he has held (and these in chronological order), and to forward copies (not originals) of not more than six testimonials of recent date.

The above applications must be deposited at the offices of the undersigned not later than 4 o'clock p.m., on Friday, 31st March, 1905, where candidates selected from the application papers will be interviewed personally during the week following, reasonable travelling expenses being paid.

DAVIS AND SOPER,
Agents of the Corporation of Bloemfontein,
54, St. Mary Axe, London, E.C.,
22nd March, 1905.

BOROUGH OF BEXHILL.

ASSISTANT SURVEYOR.

APPLICATIONS invited for position of ASSISTANT SURVEYOR and BUILDING INSPECTOR. Salary commencing at £80 per annum. Previous experience in Borough Engineer's Office necessary, with knowledge of surveying, building construction, preparation of plans and apportionments under the Private Street Works Act, 1892.

Applications, together with copies of three testimonials, to be forwarded to me on or before the 8th April, endorsed "Assistant Surveyor."

Canvassing a disqualification.

T. E. ROGERS,
22nd March, 1905. Town Clerk.

Official Advertisements.

METROPOLITAN BOROUGH OF ISLINGTON

SHORTHAND CLERK.

WANTED, in the Town Clerk's Office, a good SHORTHAND CLERK, not under 20 years of age. One accustomed to typing correspondence, and with experience in a municipal office, preferred. Commencing salary, £71 per annum.

The person appointed will be required to undergo a medical examination as to his constitutional fitness for the position.

Applications, in own handwriting, with copies of not more than three testimonials of recent date, endorsed "Clerkship," must be received by the undersigned, not later than Friday, the 31st March, 1905. Candidates selected to be seen will be communicated with.

WM. F. DEWEY,
Town Clerk.
Town Hall, Upper Street, N.,
22nd March, 1905.

URBAN DISTRICT COUNCIL OF ACTON.

ASSISTANT INSPECTOR OF NUISANCES.

THE COUNCIL require the services of an ASSISTANT INSPECTOR OF NUISANCES. Candidates must not be more than 30 years of age, and should possess a Certificate of the Sanitary Institute or other similar body, and have a practical knowledge of their work. Salary £100 per year, rising £10 annually to £150. The person appointed must reside in the District, and will be required to devote the whole of his time to the duties of the Office.

Sealed applications, endorsed, "Assistant Inspector of Nuisances," stating age and previous experience, in the candidates's own handwriting, and accompanied by copies of not more than three recent testimonials (which will not be returned), to be sent to me, the undersigned, not later than noon on Monday, the 3rd April, 1905.

Canvassing the Members of the Council, directly or indirectly, will disqualify.

By order.
WM. HODSON,
Clerk to the Council.
Council Offices,
No. 242, High Street,
21st March, 1905.

PROMOTION impossible without good Penmanship. Rapid tuition. Send stamp for Prospectus No. 18, N. BROADBENT (Prizeman and Medallist), Alston's College, Burnley.

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

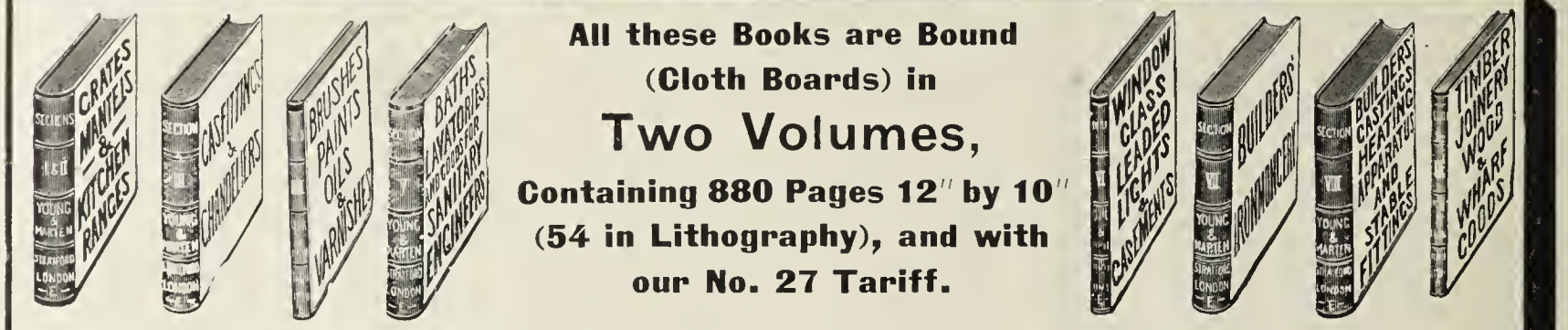
Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."


GRATES MANTELS & KITCHEN RANGES
CASTINGS & CHANDELIERS
BRUSHES PAINTS OILS & VARNISHES
BATHS LAVATORIES AND OTHER SANITARY ENGINEERS' GOODS
WINDOW GLASS LEADED LIGHTS & CASEMENTS
BUILDERS' IRONMONGERY
BUILDERS' CASTINGS HEATING APPARATUS AND STABLE FITTINGS
TIMBER JOINERY WOOD & WHARF GOODS

All these Books are Bound (Cloth Boards) in

Two Volumes,

Containing 880 Pages 12" by 10" (54 in Lithography), and with our No. 27 Tariff.

Form one of the most Practical Up-to-date Guides to Purchasers of all kinds of Builders' and Sanitary Engineers' Goods yet issued.

We will send them **Carriage Paid,** to ARCHITECTS, ENGINEERS, and SURVEYORS upon receipt of bona-fide applications.

Please mention this Journal when applying.

YOUNG & MARTEN, LTD.

CALEDONIAN WORKS. STRATFORD, LONDON, ENGLAND.

THE BEST JUDGES OF CIGARS

Now obtain their supplies at

BENSON'S, 61, St. Paul's Churchyard, London.

Really good Foreign Cigars at 16s., 20s,, 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

PATENTS FOR SALE

(ENGLISH AND GERMAN).

One for utilization of the Tide for Motive Power'; also patent for Improved Road Paving, or will make other arrangements with any financial gentleman to float a company or syndicate, etc. Circulars containing full particulars will be forwarded by post on application to A. W. MOORE, 12, Chatham Place, Hackney, N.E.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

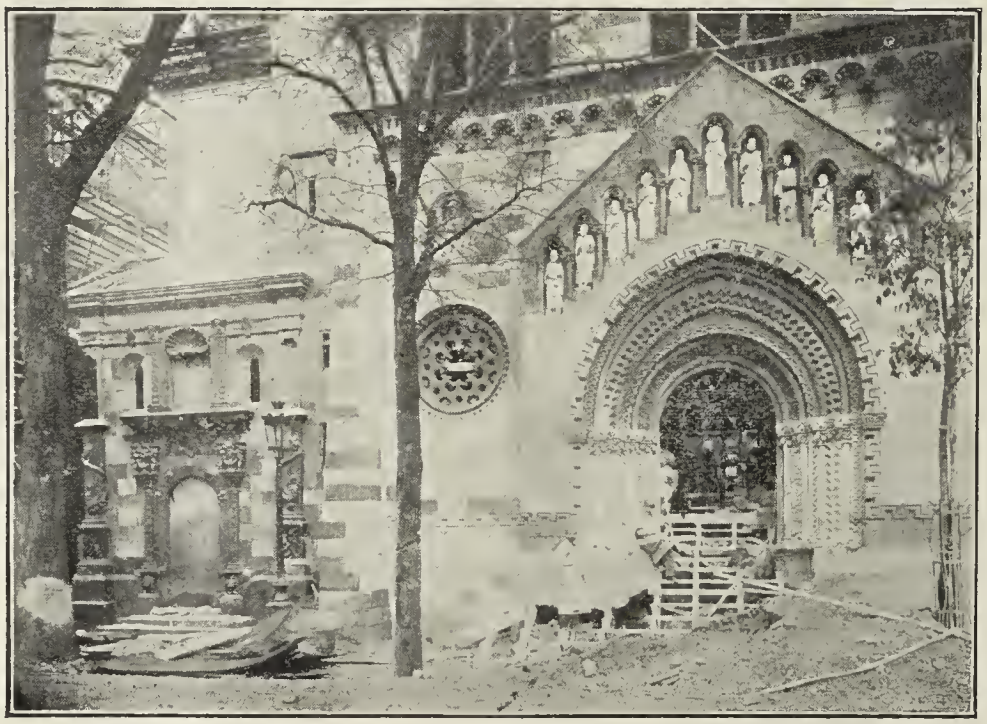
PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

EXPANDED STEEL

For ARMOURED CONCRETE & FIREPROOF CONSTRUCTION

FOUNDATIONS.
WALLS.
FLOORS.
ROOFS.
RESERVOIRS.
SEWAGE TANKS.
CONDUITS.
BRIDGES.
GRAIN SILOS.
&C.



Remarkable Example of Cement Plaster Work on Expanded Metal.

IT SAVES 75 PER CENT. IN BULK OF CONCRETE.

Write for Handbook on Practice, Tests, and Tables of Approved Formulæ or any other informatior.

THE NEW EXPANDED METAL CO., Ltd.,

Telephone—419 Westminster. YORK MANSION, YORK STREET, WESTMINSTER, S.W. Telegrams—Distend, London.

The

Municipal Journal.

No. 634—Vol. XIV. MARCH 24, 1905

EDUCATION AT EAST HAM.

The Prince and Princess of Wales at the Opening of a New Technical College and Art School. Description of the Building: Part of a Great Scheme of Municipal Development. What their Royal Highnesses Saw, and what many Boroughs and Counties Might Emulate. Sharp Contrasts in East Ham's Expansion.

A WALK through East Ham's Municipal Technical College, opened on Saturday by His Royal Highness the Prince of Wales, is tangible evidence of the strenuous efforts now being put forward by national and local government for the uplifting, by higher education, of the coming generation.

No other town affords sharper contrasts with the past than East Ham. Seventy-five years ago a small school was established in Wakefield Street on premises that had previously been used as a workhouse, and which are still standing as a Fire Brigade Station. A poor elderly man from West Ham Union was appointed schoolmaster with the princely salary of 3s. a week.

And to-day! Of this new institution, the Principal is a London Bachelor of Science; Fellow of the Chemical Society; 4th in Honours in Chemistry at London University – for these are the degrees of Mr. W. H. Barker, who holds that position. The college, which is situated in Barking Road, and adjoins the handsome Town Hall, is not the largest, but is one of the most complete, we have seen. It forms part of an original scheme of erections, comprising, in addition to the Town Hall and Municipal buildings, a swimming-bath, public health department and coroner's court, public library, and fire station, all on the one site. It has been built and equipped by the new Borough Council at a cost of about £24,000, towards which the Essex County Council contributed £6,000. Originally the design was prepared for a free library on the ground floor, and for technical and art studies over, but this arrangement was altered to meet with the requirements of the Essex County Council, which is the authority for the administration of higher education under the Education Act (1902). The general design, with the entrances, has been retained, with such modifications as the increased requirements rendered necessary.

Photo by EAST HAM NEW TECHNICAL COLLEGE. [*Wright, Forest Gate.*

The general arrangements of the college may be described as a square with an assembly hall or lecture room in the centre, the corridors and halls around which give access to the several classrooms on each floor. There are three floors, the ground storey being raised so as to obtain a semi-basement or sub-ground floor, with windows above the ground in all cases, so that each floor is equally well lighted.

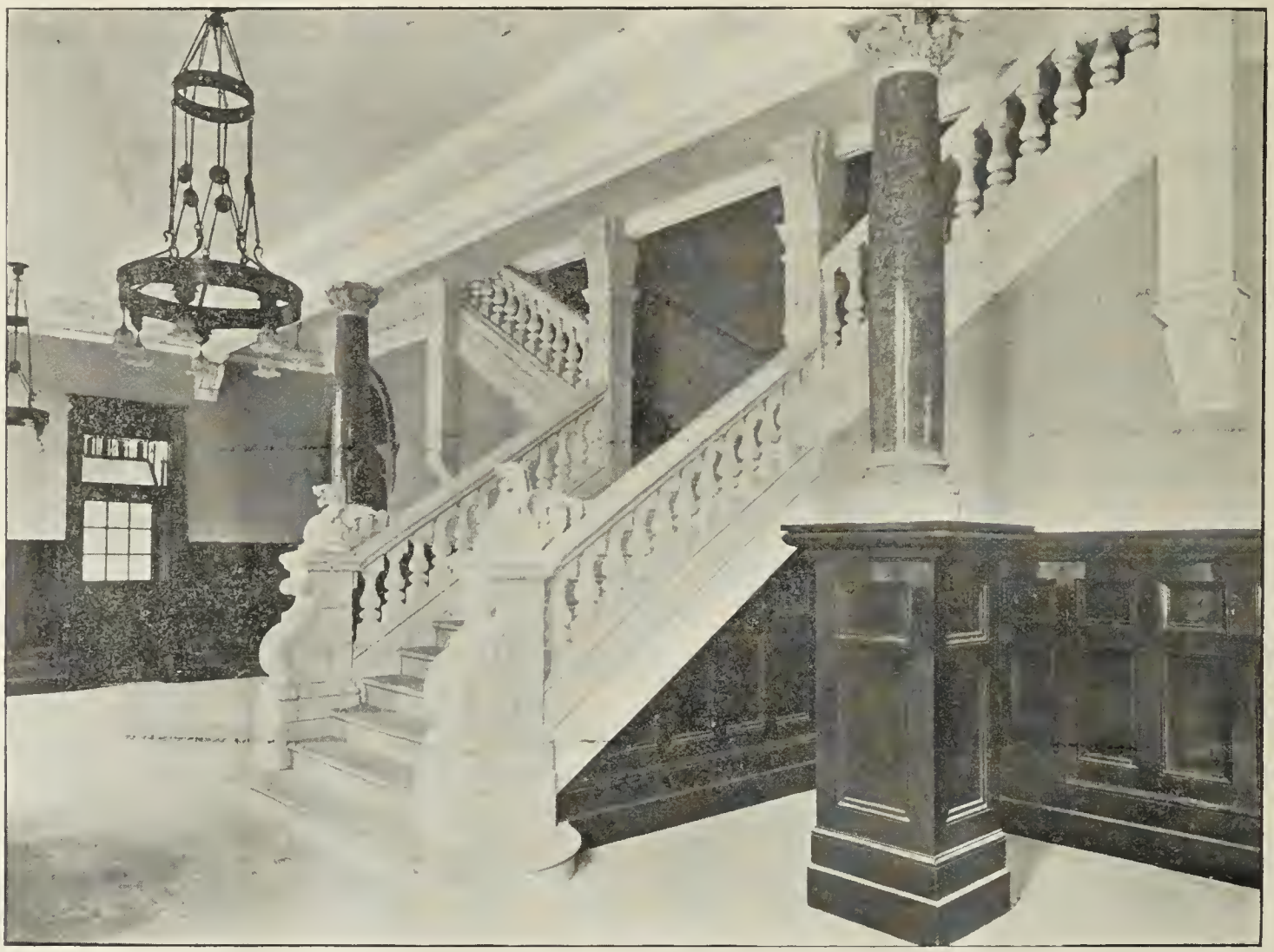
Entering from the Barking road, on the left of the vestibule is an inquiry and ticket office, and thence a glazed screen with folding doors gives access to the hall, from which a handsome staircase provides a way to all parts of the building. There are two staircases in the building, both of which are of stone, with

handsome balustrading in Carrara ware, and the halls and corridors are paved with marble Carrara mosaic, with very handsome panelled dadoes in all cases. To the left of the hall is placed the Principal's office and a committee-room, with general store, cloak, and lavatory accommodation all *en suite*.

Immediately facing the entrance a handsome doorway opens into the assembly room, which gives accommodation for 150 students.

There are eight large class-rooms, accommodating desks for 240 students, each room being provided with a large fixed blackboard and requisite cupboards, teacher's desk, &e. All the rooms are lofty, and extremely well lighted with wide windows carried close up to the ceiling. The floors throughout the building are beautifully polished with Ronuk. Besides these there is also a staff sitting-room, with its adjuncts, and a cloak-room for ladies.

On the first floor the north side is devoted to art class-rooms, with both side and top lights, comprising modelling elementary and art studio, all *en suite*, likewise a large cookery class-room with raised gallery and a scullery and pantry adjoining. On the south side science is taught in a large lecture and demonstration room for fifty-six students, with a raised gallery facing the lecture table; and in a preparation room for experiments. The elementary chemical laboratory and advanced rooms are also on this side of the building, and are fine lofty apartments, well lighted and ventilated.



AN INTERIOR VIEW.

There are also on this floor a large botany class-room, laundry and washhouse, balance-room, masters' and assistant masters' rooms, &c. On the upper floor over the west part of the building is placed a photographic studio, with a couple of spare rooms adjoining. On the lower ground floor of the building, to which separate and distinct entrances are provided, are general physics and preparation and demonstration rooms, and an electrical laboratory, with up-to-date fittings. There are also plumbers', metal, and carpenters' workshops, brickwork class-room, with stores conveniently arranged. In the centre under the assembly room is placed a coal store and heating chamber, with motor and fan rooms, batteries, &c., for the elaborate scheme of warming and ventilating on the "Plenum" system, which has been carried out by Mr. John Jeffreys, of Westminster. The fire extinguishing appliances were supplied and fitted up by Messrs. Hayward-Tyler and Co., of 99, Queen Victoria Street, the well-known firm of engineers and brass founders. There are ten hydrants in all, three in the semi-basement, four on the ground floor, and three on the first floor, and together with the hose and nozzles, leather fire buckets, &c., present a very handsome and serviceable appearance.

Externally the building is designed in the Renaissance style to harmonise with the Town Hall block, and is carried out in similar material, viz., red Accrington bricks, with terra cotta dressings by Messrs. Doulton and Co., of Lambeth. All the building is fireproof, with steel joists embedded in concrete. In all respects the structure is worthy of a great and growing centre of population. The general contractor is Mr. H. J. Carter, of Grays. The furniture and electric lighting were carried out by Messrs. Fryer and Co., of Sloane Square, W. Mr. H. A. Cheers, Twickenham, is the architect, and Mr. I. Bland, Clerk of the Works.

Though only in occupation since January last, there is not a single vacancy for a pupil at this new technical college.

Saturday's opening proceedings were marked with great enthusiasm. The six miles of route through which the Prince and Princess drove to and from East Ham were profusely decorated and lined with cheering crowds. Their Royal Highnesses were accompanied in a second vehicle by Sir Arthur Bigge, the Hon. Derek Keppel, and Lady Mary Lygon. Their Royal Highnesses were peculiarly impressed with their reception, and it is understood that the Prince of Wales informed the Mayor (Alderman J. H. Bethell, J.P.), that he had never experienced a more enthusiastic reception.

In reply to an address of welcome from the Mayor, Aldermen, and Burgesses of the Borough, read and handed to His Royal Highness by Alderman Bethell, the Prince of Wales said:—

"We are glad to be present on this occasion, to assist in a ceremony which is significant of the almost unparalleled development of the borough of East Ham. It is difficult to realise that only ten years ago these crowded streets were green lanes, that your population has multiplied nearly twenty-fold in the last thirty years, and that within your borough one industry alone employs over 10,000 men.

"You have very rightly recognised that this remarkable growth carries with it serious responsibilities. The vast and increasing population of the borough necessitates the provision of suitable secondary and technical education, and in this institution you are furnishing that educational equipment for the rising generation which is indispensable if we intend to maintain our place in the great struggle for commercial supremacy. My heart is with you in all such undertakings as that which we are about to inaugurate, and I trust that every success may attend your useful and patriotic efforts."

Escorted by the Mayor, Aldermen, and Councillors, their Royal Highnesses next visited the new college, which the Prince opened with a gold master-key. Parts of the building were then inspected, and the Prince expressed the pleasure which his visit had given him, and his satisfaction with the arrangements.

East Ham only became a borough in November last. A century ago the entire population was 1,165. To-day it is 120,000, having grown more rapidly than any other town in England. Alderman Bethell, the first Mayor, is Liberal candidate for Parliament for the Romford Division, which is the largest constituency in the Kingdom. With characteristic generosity he bore the whole expense of the public decorations in East Ham.

Our front page photo is by kind permission of the *East Ham Echo*.

MUNICIPAL LOANS—I.

Pioneer Work in Raising Money by Stock. The History of Local Loans from the Investing Point of View. How the Public has Favoured Them, in Spite of the Lack of Facilities Sanctioned by the Legislature. Methods Formulated by the Central Authority.

[FROM A CORRESPONDENT.]

A VAST deal of interest has been manifested in recent years in the borrowing of money by local authorities, but in the main attention has been concentrated on the steady accumulation of debt, and most other phases of the question have been ignored. One of these subsidiary aspects is the relation of the public to municipal loans, not as ratepayers, but as investors, and it becomes a speculation of some importance as to how far citizens themselves are responsible for actively aiding and abetting a condition of affairs certain critics declare to be inimical to the welfare of the nation.

Considering how large a proportion of the present total local debt has been raised direct from the public, and that this proportion tends to become increasingly bigger, it is perhaps not wonderful that so much of the criticism that has lately found vent has fallen on deaf ears. Without the full support of the public and the most tangible proof of their confidence, in the shape of generous subscription to loan issues, the local bodies of this country could never have accumulated their present debt, nor would the public have advanced the money had they not been convinced both of the necessity for its use and of the worth of the assets into which it has been put.

Public Policy and Private Interest.

In this respect, public policy coincides marvellously well with private interest, and the individual can do nothing better than, as investor, lend to himself as citizen. This is the real ground of much of the objection that has been taken to municipal borrowing; financial cliques find a large source of their revenue gone as ratepayers put more and more of their money into the exchequers of local authorities, often dealing directly, and leaving untouched the promotions of private syndicates, which, though perhaps offering a more tempting return, have nothing approaching to the stability of municipal bonds or stock.

In these articles, it is proposed to trace, as far as possible, the development of public taste for municipal securities, and show to what extent it has now reached, as revealed by the ordinary forms of evidence. Roughly speaking, it is only intended to touch those issues which have been offered in some way or other, by advertisement or other form of public tender, to the community, and as many sources of information as possible have been consulted. It is not pretended that the statistics are by any means complete—in the nature of the case, no such accuracy could be secured—but it may safely be assumed that the aggregate showing fairly represents the trend of public feeling in the matter, and substantially demonstrates the steps by which the securities of local authorities have come into favour, as one of the most-sought-after methods of investment.

Municipal Issues in the Past.

Like so many other things, municipal issues are not new; but they were rare in old times, because public bodies were also rare. The City Corporation floated 5 per cent. bonds in 1810 and 1812, and also as the authority for the Port of London 4 per cent. Thames Navigation Bonds. Dublin, likewise, had 5 per cent. debentures running in 1819 and 1832, and even American city issues were not unknown here in 1825, for New York Fives and New Orleans Sevens were then dealt in on the London market. The regular interest of the investment community in the loans of local authorities generally, however, naturally dates from the time when such bodies came into existence in anything like large numbers—the time, that is, of Improvement Commissioners and Local Boards, as created in 1847 and 1848. The Commissioners Clauses Act and the Public Health Act of those years both conferred powers to raise loans through mortgages on the rates, and the corresponding powers which exist to-day have been practically transferred from those statutes.

Previously, of course, isolated borrowing powers had been given to various authorities by special and private measures; but the early Local Government Acts were the first to authorise anything like promiscuous borrowing on the security of the rates. This form, however, has never been much in favour with the individual investor, and for years threw a great deal of business into the way of private firms having funds to place out at interest, life insurance corporations, and the big friendly societies. The objection of the individual investor to the old mortgage can be easily understood. He does not like his money back in small instalments, and he prefers an easily-realisable and transferable scrip. But Government has never shown itself eager to facilitate the financial operations of local administrative bodies, and no general measures were passed to allow of the issue of debentures or stock till 1873, 1875, 1888, and 1890. As a result, most of the loan capital required, apart from that obtained from the Public Works Loan Commissioners, was supplied from the quarters mentioned, and by the Ecclesiastical Commissioners, often on none too favourable terms.

Large Investments.

These societies and organisations still have a large amount of money invested in this way, though on terms more conformable to those prevailing in the general market. Life insurance corporations, for instance, in 1871 had £6,664,000 locked up in mortgages on rates, and last year £39,474,400, equal to over 11 per cent. of the total assets. Six companies have over a million each so invested, and the largest single investment is that of the Prudential, which amounts to the huge sum of £12,956,400. The Ecclesiastical Commissioners have practically all their mortgages secured on rates, the amount outstanding at the end of October last being £6,267,647, earning on the average £3 6s. 8d. per annum. The advances of the Public Works Loan Board since the reconstitution of the department in 1875 have averaged £2,638,400 per annum, at an annual mean rate of interest ranging from £2 15s. 6d. to £3 17s. 9d. per cent. The total now outstanding is £49,471,400; but it is not necessary to say more beyond this, as the funds so utilised are covered by the Local Loans Stock raised by the Treasury, and this stock will be referred to in its proper place.

Legislative Action.

The first general measure permitting any class of authority to raise money other than by an ordinary mortgage of the rates was the County Debentures Act of 1873, but even this authorisation only applied to the form of the loan, and did not empower initiation not allowed by existing legislation. The debentures were bearer bonds, and undoubtedly it was a very good thing to have a precedent of the kind created, though it was confined to Courts of Quarter Sessions. The Act was repealed shortly after by the Local Loans Act of 1875, but during the interval four counties—Northampton, Worcester, Surrey, and Westmorland—took advantage of it to raise £38,400 in 4 or 4½ per cent. bonds. The Local Loans Act of 1875 was an amplification of the County Debentures Act, and in effect applied its provisions to all authorities. It was a measure passed with the best of intentions, but it has signally failed to realised its promise. A report issued by the Local Government Board in 1873 thus admirably described its purposes: "The local loans have for the most part been raised by mortgages, granted by the local authorities to the lenders, by which the rates and corporate property applicable to the purposes for which the loan is raised, have been mortgaged to secure its repayment. These mortgages are often cumbrous in form, and are not marketable securities to the same extent that Government securities and debentures issued by companies are. The object of the Local Loans Act, which was passed in the year 1875, was to bring about an increased simplicity and uniformity in these mortgages, and to render them less cumbrous and expensive, while at the same time affording additional remedies to the lender for the recovery of his money and increased security to the ratepayers that the repayment of the loans should be equally distributed over the years within which the repayment was required by the Legislature to be made." The Act, however, is so faulty, and offers so few advantages to authorities to avail themselves of its provisions, that during the thirty years which have elapsed since its passing into law only twenty-five bodies have had recourse to it—not more than twelve of these are corporations—and the total sum involved is £748,700, or less than £25,000 per annum. No authority has borrowed under the Act for the last six years. This perhaps does not quite indicate the extent to which the measure was used, as power to proceed under it was often incorporated in private Acts.

Tardy Recognition.

Further legislation did not take place with regard to the form of borrowing by local bodies until the passing of the Local Government Act of 1888, under which the county councils then created were given the right to make stock issues, subject to certain conditions being approved of by the Local Government Board. The issue of stock by authorities other than county councils conferred by the Public Health Acts Amendment Act of 1890, is merely an extension of the principle recognised in the 1888 Act, with the important distinction that consent orders have to be first secured from Whitehall. General debenture and stock-issuing powers were granted to Scotland by the Local Authorities Loans (Scotland) Act of 1891, but the same privilege has never been extended to Ireland. In spite of these provisions by a beneficent Legislature, or rather because of them, it remains true that the bulk of municipalities prefer to get their borrowing powers defined, and the form of the security set forth in private Acts. So much can be inferred from the confession of the Local Government Board itself. Under the authority of the general legislation referred to, about £23,000,000 has been raised in stock and debentures, but there is a total loan debt represented by stock in some shape or form outstanding, of which the department has to take cognisance, amounting to about £167,000,000.

Clearly, therefore, the majority of local bodies with stock-issuing powers have either preferred or have had to obtain them in their own measures rather than resort to the methods formulated by the central authority. This is certainly not surprising in the circumstances, for, as we shall see, all the pioneer work in raising money by stock was done by the municipalities themselves, and the Public Health Acts Amendment Act of 1890 was but the tardy recognition by the State of a convenient form of floating loans in easily negotiable securities, which ought to have been conceded by general legislation many years before.

(To be continued.)

THE Baildon District Council has decided to make application to the Board of Trade for a Provisional Order authorising the Council to supply electricity within its own district for all purposes.

OFFICIAL AND PERSONAL.

NEW APPOINTMENTS AND RESIGNATIONS IN MUNICIPAL OFFICES.

GLASGOW TOWN CLERKSHIP.

Town Clerk of Fulham Recommended for the Vacancy.

A meeting of the Special Committee of Glasgow Corporation on the vacant Town-Clerkship was held on Friday, under the chairmanship of the Lord Provost.

The Lord Provost submitted the written opinion of the Lord-Advocate (Mr. Charles Scott Dickson, K.C., M.P., on the point whether Mr. R. Melling Presscott, being an English solicitor, is qualified for the position of Town Clerk of Glasgow. The Lord-Advocate's opinion is that, while Mr. Prescott cannot act as law agent, he is qualified to act as Town Clerk, devolving the law-agency on any of his subordinates, and that with that exception no disability exists.

Councillor D. M. Stevenson, seconded by Bailie Forsyth, nominated Mr. R. Melling Prescott, Town Clerk of Fulham, for the office of Town Clerk. Councillor John Ferguson, seconded by Councillor J. H. Martin, nominated Mr. John Bowers, who is acting at present as Interim Town Clerk of Glasgow. On a show of hands being taken, fourteen voted for Mr. Prescott and four for Mr. Bowers, while four declined to vote.

It was agreed that, looking to the fact that a number of the members of the Town Council, including the Lord Provost, are in London this week on Parliamentary business connected with the Corporation, the question of the appointment of Town Clerk should not be brought before the Town Council until the meeting on Thursday next. It was also agreed that, prior to the final decision being come to by the Town Council, that body shall meet in committee with the two candidates nominated—Messrs. Prescott and Bowers.

CORPORATION OFFICIALS AND PRIVATE WORK.

At Aberdeen Town Council this week, Bailie Booth proposed that no Corporation official be allowed to engage professionally in any work than that connected with the Corporation, unless with the consent of the Council; and, further, should any fee be charged for such work, the same to be approved of by the committee under which the official is employed.

Bailie Lyon moved the previous question, and declared that the proposal was a hit at Mr. Bell, the electrical engineer, who recently gave Dunfermline some advice. The Bailie pointed out that Mr. Bell did not wish to go to Dunfermline, and it was at the instigation of the Electric Lighting Committee that he went.

Mr. Hutcheon said it was bad taste on the part of the Dunfermline Town Council to make public what they did. Mr. Kemp declared that Bailie Booth had shown personal animus to Mr. Bell, who had come out of the matter honourably and straight. After further heated discussion, the first part of Bailie Booth's proposal was carried by twenty to ten votes.

COUNTY ALDERMAN HONOURED.

A testimonial subscribed to by nearly 500 of the principal inhabitants of Mid-Cumberland and North Westmorland was presented at Penrith on Tuesday to Mr. John C. Toppin, Musgrave Hall, Skelton, in recognition of his public services as County Alderman, chairman of the Penrith Board of Guardians, Rural District Council, and other bodies, during a period of about half a century. The gift was a life-size portrait in oils and a solid silver tea and coffee service.

Mr. R. Heywood Thompson, Nunwick Hall, the retiring High Sheriff of Cumberland, presided, and made the presentation, and others who spoke included Mr. T. Heskett (Plumpton Hall), Mr. H. Riley (Ennim), Mr. E. T. Bell (Lazonby), and Mr. J. E. Brownrigg (Watermillock).

Mr. Toppin, in acknowledging the gifts, gave an interesting review of the progress of local government during his period of public life.

GLASGOW ELECTRICITY DEPARTMENT.

Mr. W. W. Lackie Appointed Chief Engineer.

Mr. W. W. Lackie has been appointed Chief Engineer of the Electricity Department of the Glasgow Corporation, in room of Mr. W. A. Chamen, who has accepted an important appointment with the firm of Messrs. Bramwell and Harris, consulting engineers, of 5, Great George-street, London.

Mr. Lackie was born in Montrose in 1869. Having received his elementary education at Montrose Academy and Aberdeen Grammar School, he proceeded to University College, Dundee, where he attended the electrical and mechanical engineering classes of Professor Ewing. He next spent a year with Lord Kelvin in Glasgow University, after which he started upon his practical career with the firm of Messrs. Mavor and Coulson, of Glasgow, who were at that time electrical supply undertakers. Mr. Lackie gained a large amount of experience with this firm, both in connection with main-laying and central station work, and when the Glasgow Corporation bought Messrs. Mavor and Coulson's plant and took over the electricity supply, Mr. Lackie was appointed mains superintendent. This was in 1892. In 1897, Mr. Lackie was appointed chief assistant to the then chief engineer, Mr. Arnot, a position which he has continued to hold during Mr. Chamen's connection with the department as chief engineer.

MR. W. W. LACKIE
(Glasgow's New Chief Electrical Engineer).

Mr. Lackie is, of course, a member of the Institution of Electrical Engineers, and is one of the moving spirits in the Glasgow local section of that body. The papers which he has contributed from time to time have been readily accepted for insertion in the journal of the Institution's proceedings. During the past winter, he has delivered a series of lectures in the Technical College, Glasgow, on electric lighting and wiring.

The appointment of Mr. Lackie to be head of this large municipal undertaking has given great satisfaction to technical men all over Glasgow and neighbourhood, and we join with them in offering him our best congratulations and heartiest wishes for success in his enlarged sphere of work and responsibility.

BRECONSHIRE SURVEYORSHIP.

At Brecon, last week, the Breconshire County Council held an adjourned meeting for the appointment of a county roads surveyor, at a salary of about £200 per year, with offices provided by the Council, and with permission to undertake private work.

Out of ninety-two candidates, seven had been selected to appear before the Council. Mr. E. Vaughan Edmunds, of Caersws, surveyor to the Newtown and Llanidloes Rural District Council, was appointed.

ABERDEEN CITY CHAMBERLAIN.

At a meeting of Aberdeen Town Council this week, Mr. Alex. Munro was appointed City Chamberlain, in succession to the late Mr. P. M. Cran. Mr. Munro has been for twenty-eight years in the service of the Corporation.

The Finance Committee recommended that the salary be £500 per annum as from 1st June last—from which date Mr. Munro has discharged the duties of the office—and £600 per annum as from 1st June next.

This proposal was met by an amendment against the salary being increased to £600; but the committee's recommendation was carried by a large majority.

THRICE MAYOR OF SWANSEA.

On Thursday evening, about 200 of the principal inhabitants of Swansea and district entertained, at the Hotel Metropole, Swansea, Sir Griffith Thomas, the ex-Mayor, in recognition of the admirable manner in which he, for three years in succession, filled the office of Mayor, with honour to himself and credit to the town. The Mayor (Alderman Spring) presided.

BURNLEY CHIEF CONSTABLE RESIGNS.

Last week the resignation of the Chief Constable of Burnley (Mr. H. C. Rawle) was received by the Town Clerk. This is the sequel to a protracted meeting of the Watch Committee.

Mr. Rawle was appointed Chief Constable of Burnley about four years ago, and his present salary is £380 a year. Previously he was Chief Constable of Tiverton, and for several years was in the Bristol force

RETIREMENT OF A LIVERPOOL OFFICIAL.

Mr. John Marshall, for forty years a committee clerk in the service of the Liverpool Corporation, having retired on superannuation, was presented with an illuminated address and a massive clock and ornaments from the members of the Health, Markets, and Baths Committee, who had learnt to appreciate his genial and obliging manner and the efficient way in which he had carried out his arduous duties.

SALARIES INCREASED AT ST. ANNES.

At the last meeting of the St. Annes-on-the-Sea Urban District Council the following increases of salary were granted:—

Mr. Fred. S. Eckersley, accountant clerk, £30 per annum.

Mr. T. C. Whalley, assistant clerk's department, £15.

Mr. W. E. Proctor, sanitary inspector, £10.

Mr. Wm. Gregson, assistant surveyor, £10.

FIRST FREEMEN OF BURNLEY.

The first honorary freemen of Burnley were created on Monday, the roll being opened with the names of ex-Alderman John Howorth, ex-Alderman George Sutcliffe, and Alderman James Greenwood, who have rendered distinguished service to the town for over thirty years in many capacities.

WARRINGTON PRESENTATION.

On Monday night, in the Council Chamber, at Warrington, Mr. Stanley Wilson (Deputy Town Clerk) was presented with a solid silver tea and coffee service, as a testimonial for his services rendered to the borough. Mr. Wilson is leaving Warrington to take over the duties of Town Clerk of Leigh. The Mayor of Warrington made the presentation, and spoke of the good work which had been done by Mr. Wilson for the town of Warrington. Mr. Wilson suitably replied.

We are pleased to say that Mr. H. List, the able Clerk to the Croydon Board of Guardians, who has been suffering a serious illness, necessitating an operation, is reported to be on the road to recovery.

OUR PRIZE ESSAYS.—III.

An Audit of the Accounts of a Public Authority which it is Suggested would Fulfil all Requirements. A Professional Audit for Business Purposes, and a Statutory Audit for Departmental and Statistical Purposes. Objects to be Gained Clearly Outlined, and a Clear Statement as to how they are to be Effected.

[*By Mr. BERNARD G. POCOCK, A.S.A.A., A.C.I.S., Assistant Borough Treasurer, Woolwich, the Winner of our Third Prize.*]

IT will probably add to the value of anything I may have to say in this matter if I state first what I consider the objects to be gained by an audit of the accounts of a public authority.

1. The prevention or early detection of fraud on the part of the officials concerned.
2. The safeguarding of the interests of the public from whom the money comes in, seeing that it is applied for the purposes for which it is raised.
3. The arithmetical accuracy of all calculations involved in the accounts and of the accounts themselves.
4. The ascertainment of the accuracy of the various profits or losses made or incurred in remunerative undertakings, their proper allocation, and the clear stating of the financial position of these and the ordinary affairs of the Council in the balance-sheets.
5. That all payments made, undertakings entered into or established, and all financial transactions, whether they are of a nature of buying or selling, are in accordance with the statute and the minutes of the authority, and that proper provision has been, and is being, made for the extinction of debt.

Division of Work.

In order to make clear how this is to be effected, I have divided up the processes of audit into the following sections and sub-sections:—

1. The mechanical accuracy of the books.
2. The vouching of all cash receipts and payments.
3. The due discharge of all liabilities of the authority.
4. The due collection of all the income of the authority.
5. The due lodgment of all cash with the treasurer or banker.
6. The verification of all profit and loss accounts and balance-sheets and the items contained therein, and
7. The legality of all payments made, and the carrying out of all statutory provisions.

A glance at the above items will serve to show that they naturally fall into three sections, and the question is whether all these sections could economically and profitably be undertaken by one man.

For purposes of reference I will classify the sections thus:—

Section A.—The Internal Audit, comprising Sub-sections 1 to 5.

Section B.—The Professional Audit, comprising Sub-section 6.

Section C.—The Legal or Statutory Audit, comprising Sub-section 7.

I will deal with these sections *seriatim*, according to the sub-sections enumerated above:—

SECTION A (1).—The Mechanical Accuracy of the Books.

The introduction of the double entry system of book-keeping (and I am not going to suppose that there is *one* authority in the Kingdom which has not adopted this, to my mind, the only rational system) has proved a boon and a blessing to all those whose duty it is to prove that the mechanical part of their work has been correct, and it should always be borne in mind that no matter how involved the accounts of any authority may be, the basis of all good accountancy is the exactness of the figures.

In order to most easily secure this, an auditor should be prepared to suggest any form of book-keeping for any purpose, and the two things to be borne in mind when systematising any set of books are:—

1. What is the purpose the books are intended to serve, and
2. How, most easily, can their accuracy be determined.

The second consideration is the one more applicable to an auditor, and he will probably find that the system of dividing his books columnarly is the quickest and easiest method of agreeing the subsidiary book totals with the ledger totals. All postings from cash-book A intended for ledger B should be entered in column "B" in the cash-book, and posted to column "A" in the ledger. Both cash-book and ledger should have a "total" column, which, on being cast, should represent the sum of the analysis columns. This system, it will be seen, provides for the easy location of any error in posting, and strongly militates against the chances of any error in casting being perpetuated; an auditor should always see, when attending, that when the bottom of a page in any book is reached all casts are made and carried forward immediately, and not left "for some other time;" similarly, all postings should be made immediately, *i.e.*, day by day. It may be supposed that in dividing the books thus (*i.e.*, columnarly) a good many columns are required in the ledger accounts; this will not be so if care be taken in systematising the book-keeping so that all cash is posted to a personal account in a personal ledger, etc., etc.

"Calling Over."

In a large system of books under my control at the present moment only two columns besides the total column are found necessary, but this is an irreducible minimum.

Although having by this means established the mechanical accuracy of the book-keeping, it may happen, nevertheless, that, while an amount is correctly posted so far as the sum is concerned, it may have been posted to a wrong account, and this error can only be discovered by "calling over" all the postings into the ledgers, care being taken in this check that the items are posted to the right account as well as in the right amount.

I consider that this "calling over" process should take place at least every month when the previous month's entries have been made and posted. "Delays are dangerous," and this is perfectly true in cases where financial transactions are concerned, as a slip in a posting may mean a creditor being paid too much, or the money may have been paid to the wrong man! Numerous cases have come to my knowledge where the systematic calling over of the books would have saved the loss of many pounds, and have been the means of detecting fraud on the part of the book-keepers.

SECTION A (2).—The Vouching of all Cash Receipts and Payments.

Receipts.—The cashier who receives money on behalf of the authority should be provided with books of counterfoil receipts, which should be numbered consecutively. He should only be allowed one book of each kind at a time, and this should be examined by the auditor before being given to him to see that the numbers are properly imprinted thereon, and that there are no blanks.

When issuing a receipt for cash the cashier should enter into a "waste" book kept at the cash desk for this purpose (which should not be confused with the cash-book proper) the number of the receipt issued, and the amount of same. There may be various kinds of receipts in use, but all should be entered in this one book, and the total *banked* daily at the last possible moment. On the following morning, or perhaps on the same day, the cash-books should be written up by another clerk, and his total should agree with the cashier's total.

The auditor should, in checking these transactions, verify the accuracy of these figures, and see the bank's receipt for the money, *particularly noting the date thereof*. As an extra safeguard, the auditor should procure the pass-book *himself*, from the bank, and examine the date of the credit therein. I once accidentally discovered a fraud in a partnership case by calling at the bank myself (where I was known) for a pass-book, and the defaulting partner kindly furnished me with another later on—an improved edition apparently.

Rate Receipts.

With regard to *rate* receipts, these should be checked in the same manner, but in order to effect this, rate collectors should be made to use the "continuous" numerical receipt, and not write out their receipts according to the order of the rate-book. This is most important, as unless this is done it is possible for a collector to keep large sums of money in hand until the close of the rate.

When an outside collector is employed for other purposes than for rates, he should be provided with adhesive forms in book-form, with counterfoil attachment; he should keep a special collecting and deposit book, which should be written up after every round in analysis form, and the chief cashier will give him receipts from the proper books for the cash, which the collector will credit himself with in his collecting and deposit book (as above).

The auditor should ascertain whether the cashier or collector has access to the ledgers in which the cash is subsequently posted, and should recommend otherwise, as it is most inadvisable that those who handle cash should prepare or keep any ledger cash accounts. Every officer who receives internal cash, *i.e.*, cash for payment of wages outside the office, etc., etc., should be debited in his own memorandum cash-book (one being provided for each officer), and credited and initialled by the cashier, on the accounting officer proving to his satisfaction that the money has been properly disposed of. The auditor should examine these books periodically to see that nothing is outstanding, and that the books are properly used.

A Word as to Vouchers.

Payments.—The auditor should see a voucher or receipt for every payment made, a good method is to have the voucher at the foot of or on the reverse side of the cheque making the payment. This ensures a receipt being given. Care should, however, be taken to see that in special cases the proper wording is inserted, as, for instance, where it is in final settlement of all claims in an action or final payment on account of a contract. A separate cash-book should be used for all cheques made payable to "bearer," and cashed by an official of the authority. Any cheque thus drawn should be posted to this cash-book, and the officer disbursing the cash is thus made responsible for due vouching of the payment. The auditor should carefully examine all cheques for the purpose of seeing whether they were payable to bearer, and look for the second payment, which will be vouched in the officer's cash-book. Vouchers should also be produced for all payments made through petty cash, and these should be numbered. Where a voucher cannot be produced, say, for railway fares, telegrams, etc., the slip on which payment is made should be initialled by the responsible chief of the department concerned.

The auditor will take every precaution to prevent the same document being produced to vouch for two payments.

SECTION A (3).—The Due Discharge of all Liabilities of the Authority.

In the case of ordinary tradesmen's accounts, all orders should be issued with a blank form of invoice on an official form, of which a counterfoil or duplicate is kept. The counterfoil or duplicate can then be

referenced to the cash-book or to the tradesman's personal account. Under this heading, however, the most important items are the due payment of all moneys for interest on loans and the placing of the sums due into their respective sinking funds. The loans of the authority and the interest, with dates on which same is payable, should be scheduled in such form that a reference is only required to see that the interest is paid, as otherwise the authority will be charged compound interest, and will lessen any chance of the interference of the mortgagees.

I think auditors should now insist, in the cases of large authorities, upon the carrying out of the income and expenditure system of accountancy, whereby all the income (apart from receipts) and the whole of the expenditure (apart from payments) are taken into account. If this system be properly instituted throughout, the result will be a balance-sheet which will give a true statement of the authority's financial position at the year-end, and will greatly assist in framing estimates with any degree of accuracy. I do not suggest that creditors should be paid too hastily, but where loss is likely to be incurred by lack of promptness of payment care should be taken to see that such payments are made to prevent loss.

SECTION A (4). The Due Collection of all the Income of the Authority.

This is by far a more important item in the duties of an auditor than the last-mentioned.

A schedule should be prepared of all rents, encroachments, and payments of a similar character which fall due to the authority at regular intervals, say weekly, quarterly, annually, &c., and the date such moneys are payable. The auditor should go carefully through this list, and turn them up in the debtors' ledger, and see that they have been duly charged and collected. A satisfactory reason should be given for any which are outstanding, or which were not *promptly* collected as they fell due. Should any be written off as irrecoverable, care must be taken to see the authority in the minutes of the authority for this proceeding.

In the cases of baths, markets, libraries, and undertakings of a similar character, the counterfoils should be regularly examined and compared with the officer's cash-book, and the amount due should be charged against him and credited to the revenue account of the undertaking; the amount paid into the bank for these services is posted to the credit of the accounting officer, and the auditor should see that these payments correspond with the amount due.

This regular audit should be carried out in all undertakings of a remunerative nature, such as those enumerated above, and cemeteries, tramways, &c.

SECTION A (5).—The Due Lodgment of al Cash with the Treasurer or Banker.

This is a most important matter, and should be the subject of very close attention on the part of the auditor, as unless care be taken to see that the cash collected is banked on the day it is received one day's takings may be used to make the previous day's lodgments, consequently an officer may have a large balance of money in his own hands, and which he can use for his own purposes.

See my remarks (ante) on the use of continuously-numbered receipts and counterfoils for rate-collectors.

If the system is adopted as defined in the preceding paragraph, it is easy to determine at any time the amount of cash which the accounting officer has banked compared with what he has received. The auditor should have the bank's acknowledgment at hand, and carefully compare the dates and amounts in one with the dates and amounts in the other.

SECTION B.—The Verification of all Profit and Loss Accounts and the Various Items in the Balance-Sheets.

This is the most difficult part of any audit, and it is here that great skill and knowledge are requisite, in order to deal fairly with many questions which must arise under these heads.

Profit and Loss.—In dealing with these accounts, an auditor should first of all satisfy himself as to the correctness of the charges against the income—*i.e.*, that this account is bearing its full share, neither more nor less, of the charges for rent, taxes, salaries, and other establishment charges, and where many services are administered under one establishment. I think a good basis of apportionment of establishment charges is upon the wages paid in the various services. Besides seeing that no service is bearing more than its fair share of these charges, an auditor must see that the service is escaping no burden properly chargeable.

Having determined the correctness (or otherwise) of these items of comparatively small importance, the auditor finds charged (or should) certain sums for depreciation, reserve, renewals, sinking fund, &c., &c. A sinking fund is a fund into which is paid periodically certain sums which are invested, and the revenue arising from these investments is also accumulated in this fund. The object of keeping this fund is to be able to repay, at a given time, the amounts borrowed for capital purposes, and must not be confused with a depreciation fund, which is a fund accumulated by sums appropriated from the profits of an undertaking against which is charged any small renewal or repairs of plant for which it is not worth while to borrow more money, and in a profitable undertaking this depreciation fund can sometimes assume proportions sufficient for new plant to be laid down without any further capital being required.

Due Provision for Repayments.

The difference between these two funds is that whereas the former requires the withdrawal of cash for investment the other does not necessarily do so. The accumulated money can remain in hand, and be used as a working balance. This last is an important item where the undertaking is on a large scale, and where revenue-money is only collected quarterly, and the local bank is either unwilling or unable to permit an overdraft except on very unfavourable terms. An auditor should, I think, see that the amount kept in hand for this purpose, which has been raised by rate, is not out of proportion. Should the cash in hand from these sources be of large amounts, it should either be invested in the redemption of debt or else returned to the relief of the rate which was burdened with its provision. Where bank terms are favourable, and an overdraft is a rare occurrence, say for a day or two once a quarter, it is perhaps more profitable and better policy to dispense with the provision of the working balance, and pay for the temporary accommodation by the bank. In a municipal trading concern, where due provision is made for the repayment of capital, and a sum is set aside annually for providing renewals, perhaps a renewals fund is not such an important item as it otherwise would be; but the question is this—Is *due* provision made for the repayment of capital? When a loan is sanctioned for the purchase of machinery, and the authority is allowed forty-two years in which to repay it, and the sinking fund is set aside on this calculation, then due provision is not being made, and a renewals account, similar to a depreciation fund account, becomes necessary. A sum should be set apart from the profits annually which, together with the sinking fund amount, should adequately provide for the replacement of the machinery or any part thereof at such time as, in the experts' opinion, replacement becomes necessary. It is this account which is sometimes called the "renewals" account. If the money represented by the sum charged in the profit and loss account for the "renewals" were to be invested, the amount so charged would be materially less than an ordinary reserve, which is allowed to remain as a working balance, as it would then become a *real* reserve. Where an undertaking is a well-paying concern, the amount so set aside for renewals must not be allowed to assume unreasonable proportions, as it is neither just nor good finance to allow a future generation to reap all the benefit of a past generation's savings; after sufficient provision has been made for all this depreciation and these renewals, and a working balance provided, the ratepayers should reap the benefit of any profit which may remain. Here it becomes an auditor's business to decide or advise as to what extent the ratepayers should be so relieved. It is absolutely impossible to lay down any fixed rate, but he must be guided purely by the circumstances in each case.

Equalisation Account.

As to whether consumers or the general body of ratepayers should benefit by any profit, I think a fair division would be two-thirds to the consumers and one-third to the others; if a large profit is made after meeting all expenses, &c., &c., it appears to me to be clear that consumers have been overcharged for the commodity supplied, and they should benefit by any surplus. On the other hand, were the commodity supplied at a loss, the general body of ratepayers would be called upon to pay that loss. Years may vary, and if it be found practicable, I think an equalisation account might be opened, to be fed by surplus profits of one year, and drawn upon to meet any loss in others. If worked properly, this is perhaps the simplest way of dealing with the division of profits, and distribution of losses. Where a concern (which is not an absolute necessity) is run at a loss, this loss is, of course, payable by the general body of ratepayers, and the consumers should reap no benefit from any profits until the general rate has been given relief. Sight must not be lost of the fact that such undertakings as tramways, electric, light, &c., &c., generally benefit the town, and attract residents, and it is for this reason that I suggest the above division of profits.

Depreciation.

As to what amount must be provided for depreciation is entirely the business of an expert. An auditor's duty should stop at seeing that something is so provided; but he should be a man of sufficient experience to be able to judge whether the amount advised by the expert is a reasonable one. If the authority's experts advise, and he has reason to doubt their judgment, he should report to the authority; if it adheres to its experts' judgment, then the auditor should, if after duly considering the financial position and prospects of the undertaking he still adheres to his opinion, exercise a power (with which he *should* be invested) of calling in an independent expert. In the case of machinery, he should be allowed to do this at every audit; but in the case of buildings, lands, &c., perhaps once in every five years should be sufficient. Experts should be nominated by an independent person or authority—the Board of Trade, for instance, or the Local Government Board.

The "Stock and Stores" amount in the account should be certified by the chief official and members of a committee. The auditor should satisfy himself by an examination of invoices that the stock (particularly where it affects profit and loss) has been taken at cost or market value (whichever lowest), and should carefully check all calculations and extensions on the stock sheets.

Balance-Sheets.—A separate balance-sheet should be prepared for each undertaking, and where the undertaking has been purchased from an existing company the amount paid for goodwill does not usually appear in a municipal balance-sheet. This, from an auditor's point of view, is absolutely wrong. Upon purchase the amount paid for everything but goodwill should be put in the balance-sheet at valuation price, and the goodwill amount (which will be the remainder) stated separately. It is an undesirable item in a balance-sheet as a rule, and any surplus profits should be applied to its redemption before any relief is given to the rates. As to what a public authority should pay

for goodwill is a matter for the authority itself to decide, and this would never come within an auditor's reference. Each balance-sheet should show the financial position of the undertaking at the date of its preparation, and indicate as clearly as possible how the transactions during the year have improved, or otherwise affected, matters financially. These balance-sheets should be aggregated into one balance-sheet for statistical and statutory purposes.

SECTION C.—The Legality of all Payments and the Carrying out of all Statutory Provisions.

This is purely an audit for the purpose of seeing that the requirements of the Statutes have been fully adhered to with regard to financial matters, and this portion of the work is perhaps as important as any, but is settled by the Statutes governing the authority.

Generally.—Now, would an audit, conducted on the above lines, carry out the purposes for which an audit is intended.

Section A, to be properly carried out, must, in accordance with the ideas suggested above, and to fulfil the requirements outlined, be a *continuous* audit. Where detail is left to be checked months (in some cases years) after the transactions have taken place, and their history is forgotten, an audit loses its function in acting as a spur to the keeping of the accounts and books up to date; and, where fraud or negligence has been committed, and perhaps the perpetrator gone, no amount of auditing can replace the loss. A continuous audit acts not only as a discoverer of fraud, but also as a deterrent to its commission. Besides, when the time comes to close the books, how much more easily this is accomplished with the mechanical accuracy absolutely attained! Financial economy will also be effected by the prompt collection of all debts and sums due. As soon as the work under Section A is finished for the year, that under Section B can be carried out, and this will, of course, be done by men of experience and training in the profession. When all points in connection with this Section are cleared up, that of Section C can be proceeded with.

Carried Out by Duly Qualified Accountant.

Now the question comes, who shall undertake these audits? And here I should like it understood that, in the suggestion I am now making, I am not making any compromise. I think that Sections A and B could be carried out by a duly qualified accountant in full practice, and that his appointment, which need not be subject to the approval of any authority other than the Local Authority concerned, should be for a period of not more than ten, nor less than five years, and at the end of the period he should be eligible for re-election. The audit work done by him should be regulated by Statute, but he should be allowed to carry it out in any way which seems to him best. He should make quarterly reports to the finance committee, and an annual report to the council. He should also be available to act as "consulting financier" to the council.

Upon the completion of the work by him under Sections A and B, he should give notice to the Local Government Board, which would then send its own auditor to carry out the work under Section C. He should be a person qualified to settle points of law, and to see that the payments are in accordance with the Statutes. He should also be competent to see that proper provision has been made for the keeping up of the sinking funds.

Such an audit would, I think, fulfil all requirements. As to the standardisation of accounts, such a thing may be very desirable, but is it at all practicable? At present I think not. The system outlined above provides for a professional audit for business purposes, and a statutory audit for departmental and statistical purposes. Each would be useful, and neither need clash with the other.

PERSONAL CLEANSING.

What is being Done in London with a Little Known Measure.

DR. WANKLYN has just presented to the London County Council an interesting report on the administration in London of the Cleansing of Persons Act, 1897. As this measure is but little known to local authorities generally, it will be as well to set out the terms of its provisions:—

"(1) Any local authority shall have the power, when in their discretion they shall see fit, to permit any person who shall apply to the said authority, on the ground that he is infested with vermin, to have the use, free of charge, of the apparatus (if any) which the authority possess for cleansing the person and his clothing from vermin. The use of such apparatus shall not be considered to be parochial relief or charitable allowance to the person using the same, or to the parents of such person, and no such person or parent shall by reason thereof be deprived of any right or privilege or be subject to any disqualification or disability.

"Local authorities may expend any reasonable sum on buildings, appliances and attendants that may be required for the carrying out of this Act, and any expenses for these purposes may be defrayed out of any rate or fund applicable by the authority for general sanitary purposes, or for the relief of the poor.

"(2) In this Act, 'local authority' means in England the council of any county borough, the district council of any district, any board of guardians, and in the county of London any sanitary authority as defined in the Public Health (London) Act, 1891."

The application of the Act is permissive, and, except in the metropolitan boroughs of Hackney, St. Marylebone, and St. Pancras the action, if any, taken by metropolitan borough councils has only been such as would enable the shelter provided for the reception of persons during the disinfection of their houses to be utilised for the purpose of the cleansing of persons, or else an arrangement has been made with the Board of Guardians for persons to be cleansed in the baths of the casual wards, their clothes being disinfected in the ovens used for the disinfection of the clothes of the inmates of these wards.

In each of the three metropolitan boroughs mentioned above, a separate station has been provided for the cleansing of persons, and, as regards disinfection, the arrangement in the Metropolitan Boroughs of St. Pancras and Hackney is, that the apparatus used for the disinfection of clothes is utilised for the purposes of the Act, whilst in St. Marylebone the disinfecting chamber for the cleansing of persons is distinct from that used for other purposes.

By direction of the St. Marylebone and St. Pancras Borough Councils, handbills or notices to the effect, that persons infested with vermin or parasites will be attended to with consideration on applying at the cleansing station, have been placed in common lodging-houses, Salvation Army shelters, police stations, public libraries, dispensaries, out-patient departments of hospitals and hospitals for the treatment of skin diseases, and copies of the notices have also been supplied to school teachers.

It appears from Dr. Wanklyn's report that, when special accommodation is provided and the arrangements made under the Act become known, a considerable number of persons are willing to avail themselves of the facilities afforded for cleansing their clothing and persons.

For instance, in 1898 the St. Marylebone Metropolitan Borough Council began to administer the Act, and between that time and November, 1904, the number of persons cleansed was 32,500, of whom 1,796 were females. Again, in the Metropolitan Borough of St. Pancras, the Act was, prior to 1904, administered by the guardians, and few applications were made for the use of the accommodation, but in May, 1904, the special provision made by the Borough Council came into use, and during the six months ended October, 1904, about 1,400 persons were cleansed, of whom 600 were women and children.

In the Borough of Hackney a special and complete cleansing station has been in use since March, 1902, and about fifty persons annually make use of the station.

The Borough Councils of Camberwell, Chelsea, Fulham, Greenwich, Hampstead, Lewisham, Poplar, Shoreditch, Southwark, Stepney, and Wandsworth, make use of the ordinary reception house and the disinfection station, and since the Act came into operation only about ten persons have made use of the accommodation offered in Chelsea, and about twenty have utilised the accommodation in Southwark, whilst no applications have been received in the nine remaining boroughs. In Islington about twenty persons have been cleansed under the provisions of the Act.

The Corporation of the City of London and the Borough Councils of Battersea, Bermondsey, Bethnal Green, Deptford, Finsbury, Hammersmith, Lambeth, Kensington, Paddington, and Woolwich have made arrangements with their respective boards of guardians for the cleansing of applicants at the various casual wards, with the result that there have been twenty persons cleansed in the City of London under the provisions of the Act, about five in Kensington, about two in Finsbury, and none in the remaining eight boroughs.

In the City of Westminster also, applicants are cleansed at the casual wards or at the disinfecting station, and in the metropolitan borough of Holborn, the baths of the casual wards are used for cleansing the persons of applicants, their clothes being disinfected in the disinfector of the metropolitan borough council.

WOMEN IN LOCAL GOVERNMENT.

LADY FRANCES BALFOUR presided last week in the Caxton Hall, Westminster, over the annual meeting of the Women's Local Government Society. She spoke of the steady though slow progress the annual report revealed, and said that she would not wonder if general enfranchisement came suddenly, and perhaps when power returned to the Liberals, who were deeply pledged to the women who had worked for them so strenuously. The most practical work at present, in view of Dr. Shipman's Bill being down for second reading on March 31, was to importune members of Parliament, who, with a general election imminent, could not ignore appeals.

Miss Louisa Twining, president of the society, laid special stress on the importance of women inspectors for county workhouse infirmaries to strengthen and support the work of the nurses, who at present, she said, are subordinate to untrained masters and matrons, and she suggested an appeal to the new President of the Local Government Board. She also emphasised the importance of having more police matrons appointed to take charge of women at police stations. The cost would be very trifling if the wife of a resident policeman were employed.

Dr. Helen Boyle, assistant medical officer at Claybury, 1895-7, in an address on the need for women in the administration of lunatic asylums, declared that their appointment would make for economy in red tape, provisions, internal management, household requirements, architectural arrangements, and labour.

On the motion of Mrs. Fawcett, seconded by Miss M'Kee, a resolution was carried unanimously thanking Dr. Shipman for introducing the Local Authorities (Qualification of Women) Bill.

THE Mayor (Councillor J. R. Birkett) presided over the meeting of the Morecambe Town Council on Monday, and announced his intention of presenting a clock and tower to the town, at a cost of £400. The Mayor said he hoped the clock would be ready for public presentation on the anniversary of Charter Day.

L.C.C. AS SCHOOLMASTER.

What the London County Council Has Accomplished in Its Role of Schoolmaster. Building on the Foundation of "An Immense Piece of Work." Secondary Education. The Training of Teachers. The Re-organisation of the Inspectorate. Splendid Facilities for the Poor Man's Child in London.

ELEVEN months have elapsed since the L.C.C. became the Local Education Authority for all grades of education, under the Education Act of 1902, and the Education (London) Act of 1903.

A Bird's-eye View.

A bird's-eye view of what the L.C.C. has accomplished in its rôle of schoolmaster since the 1st of May, 1904, is interesting and instructive. Let us recall the nature of the legacy which the old School Board and the Technical Education Board bequeathed to the new authority. Roughly speaking, there are over 1,500 schools (including voluntary schools and other institutions) to be maintained and supervised by the Council.

The Council's Children and Staff.

In the buildings attend from day to day 857,000 children and students. This young army requires for the supply of its proper mental pabulum no fewer than 20,000 teachers, good, bad, indifferent, qualified, unqualified, old and young. The teaching staff alone costs something like two millions sterling a year, and involves about 17,000 separate appointments annually. Add to these huge figures an annual maintenance expenditure of £4,000,000, a capital yearly outlay of £650,000, and an educational debt of over eleven millions, and one ceases to wonder at the Gargantuan appetite, of the L.C.C. in the vital question of municipal education. In dealing with the metropolis, however, we must use a map with a reduced scale, if we are to gain anything like a conspectus of the Council's task in the space at our disposal.

For over thirty years the wheels of education have been revolving slowly, and heavily. Although the School Board for London suffered extinction for its ambitions, it laid the foundations of an immense piece of work. In the regions of Higher Education, it was faithfully copied by its vigorous, but younger brother—the Technical Education Board.

Progressive Zeal.

The first duty which confronted the leaders of the Progressive Party at Spring Gardens was that of hitching on the new harness to the old horses. This operation stopped progress. It was inevitable that it should be so. But the resolution shown by Mr. McKinnon Wood, Sir William J. Collins, Mr. Sydney Webb, Alderman Dickinson, and Mr. Cornwall, in compelling Whitehall to accept the no-co-option scheme for the Council's Education Committee, has never flagged through these ten months of incessant labour. The appointment of chairman of the Education Committee—the largest committee of the Council—was given to one of the most able, powerful, tactful, and shrewd members that the Council possesses, viz., Sir W. J. Collins, M.D., B.Sc., a former chairman of the Council.

Under his clever leadership, the Education Committee has delved, week after week, into the mass of arrears of work, and the results of its labours have occupied hundreds of pages of the Council's business paper.

Great difficulty was experienced at the outset with the appointment of managers of both classes of public elementary schools, and the number and the grouping of schools. It was not until the appointed day had been four times postponed, that the consent of all the metropolitan borough councils, except two, was obtained to the Council's proposals.

It is a matter of course that the Council has handled the large questions connected with school management, both within the schools and without, in a statesmanlike manner

Schools Open to All.

Public education should be what the name implies, and the sweeping away of internal grades among the voluntary schools undoubtedly purifies the educational system from charges of snobbery and caste. The general treatment of the voluntary schools has all along been generously admitted by their strongest supporters in the Council Chamber, and in all practicable ways the voluntary schools have been allowed to participate in the advantages of the Council's own buildings.

Education for the Children.

In the region of special schools for the afflicted children, the utilisation of sites is being rapidly pushed on. Much, too, has been done for providing this class of child with the most modern equipment—as the horsed ambulances of the Council bear witness.

The health of the scholars is to be cared for in an extensive scheme of medical supervision, which the Education Committee has presented to the Council.

Secondary education now embraces the polytechnics, technical institutes, and evening classes; training of teachers, scholarships, and secondary schools.

In the former, inquiries are being actively prosecuted, with a view to the linking-up of day schools to evening, evening to polytechnics, and polytechnics to the university.

A Few Educational Problems.

The Council's efforts to rectify the chaos of secondary school facilities in London promise immediate results. The huge capacity-catching scholarship system (£275,000 a year) is already at work, though it was only adopted last month.

The training of teachers has begun. Certificate classes have been converted into a college. Arrangements have been completed with the London University for housing 100 students at the Goldsmiths' Institute, New Cross; and, with the Day-training College at Southampton Row, the Council has rapidly overhauled this important defect in higher education.

To place this branch of the work in good going order will, it is estimated, cost nearly a million sterling.

The re-organisation of the inspectorate has been sanctioned, and the vexed question of attendance of school children at divine worship has been settled on practical, though novel lines.

That the Council is alive to the importance of securing the best interests of the ratepayers, is evidenced by the fact that an investigation is now taking place into the endowments of all schools within the county. When this has been finished, the sum of £25,000 a year ought to come into the Council's coffers.

How Much on the Rates?

Now, just a word as to finance. The education rate prophesied by the School Board for this year was 1s. 4d. The natural expansion in elementary, and the reduction of chaos in higher education to a system suitable to the pressing needs of London, will—nay, must—involve an increase in the rate. Lord Welby, only last week, announced that the addition for the ensuing year would be 2d. in the pound.

This increase does not compare unfavourably with the budget of large provincial towns and areas. At any rate, the poor man's child in London has never had such a splendid chance for obtaining a good, solid education as under the *ægis* of the L.C.C.

When the annual report of this branch of the Council's service comes to be written, an unbiassed criticism of it will be summed up in the words, co-ordination and progress. Thus will the Council justify the heavy burden and responsibility placed upon its shoulders by a trusting Government.

EDUCATIONAL NOTES.

Birmingham.

The modern feature of giving instruction in the feeding of infants, which has been recently adopted by many school authorities, has just been included as part of the training of teachers in domestic science.

Brighton.

A motion to deprive married women teachers from serving the Education Committee has recently been defeated by a large majority.

Dorsetshire.

The Education Committee has adopted a scheme of agricultural scholarships, varying in value from £5 to £40.

East Sussex.

The Education Committee has delegated certain powers to school managers. As regards council schools, authority is given to spend £5 per school in repairs.

Finchley.

The Education Committee has arranged for a series of lectures to be given to its teachers on the following health subjects:—Epidemics; Infectious Records of Children; Malnutrition, and Defective Eyesight.

Inspection of Documents.

The Bill introduced by Sir Albert Rollitt proposes to restore the right to ratepayers to inspect books and documents of local education authorities.

London.

The Education Committee is considering an important revision of the salaries of both classes of teachers in its service. Practically, there is to be no distinction made between these classes.

Northumberland.

One hundred and forty scholarships and bursaries are offered by the County Education Committee to boys and girls from thirteen upwards. The value of the bursaries is increased by the provision of free books, tuition, and railway tickets.

Official Issues.

Among the recent official publications we have received have been the Scotch Code for 1905 (Cd. 2429); the Scotch Education Bill; Circular *re* extra pupil-teacher grants; a Bill for Agricultural Instruction (Jesse Collings); and a Blue-Book on the old aid-grant to Voluntary Schools Associations (Cd. 2412).

Rutland.

The County Council is circularising the municipal authorities, with a view to obtaining an expression of opinion upon the possibility of reduced fares to municipal and educational officials who travel on public service.

Warrington.

The educational estimates for the ensuing year show an expenditure of £41,599, and an income of £29,756. The deficiency is equal to a rate of 1s. 0½d. in the pound—1¼d. more than last year.

West Ham.

The Education Committee has decided to take no action respecting a suggestion of the Social Democratic Federation to pay for medical certificates for parents who had to keep their children from school through infectious disease.

Worcestershire.

The Education Committee has had delegated to it all powers—except financial and the scheme has been approved by Whitehall.

THE HOUSING PROBLEM.

What Should be Done to Prevent Miles of Mean Streets being Pushed Out into the Country. Planning of Whole Neighbourhoods Ahead of their Development. New Industrial Suburbs, or Entirely New Centres of Population. Fixing a Load-Line. Unequal Distribution of Rates in Favour of Unbuilt-on Land. Provision of Proper Houses for the Very Poorest.

By Mr. BUDGETT MEAKIN.

THIS great difficulty, which so intensifies every social problem of working-class life, can have but one solution: the development of an enormously increased area, now for the most part country, by creating either new industrial suburbs, or entirely new centres of population. This being so, it is essential for the welfare of the nation that this natural movement should in future be guided on the best possible lines, or miles of mean streets will continue to invade and destroy the country, bringing in their train nearly all the old evils.

The great mistake made by many whose sympathies are suddenly drawn to the ill-housed masses is to suggest the immediate clearance away of the slums. Some houses must doubtless be at once condemned as absolutely unfit for habitation, but the cost of their removal and the loss entailed by reasonably limiting the number to be housed on their site, must be borne by those who have made undue profit out of the necessities of their occupants; it must not be allowed to come on the rates, as it too often does when action is taken under Parts I. and II. of the Housing Act. And it must always be remembered that as long as such houses are homes, they cannot be destroyed without rendering their inmates homeless; clearing the worst spots in an overcrowded district only increases the evil in the surrounding belt, while until fresh homes have been provided, many of our sanitary regulations must perforce remain inoperative, since to enforce them would be to render hundreds of thousands homeless.

A Load-Line on the Land Required.

It will not, however, suffice to carry the surplus population outwards without imposing some such restrictions on the use of the land as those laid down in the Bournville Trust Deed. As long as it is possible within the limits of the law to blight our rural suburbs by cramping in forty-five dwellings per acre, where the average should not exceed ten, and a reasonable maximum would be twelve, it is hopeless to expect the general growth of districts like Bournville. We have discovered the necessity of fixing a load-line for our ships; it is high time to fix a load-line for the land as yet unoccupied by dwellings, which can be done to the loss of none, and to the gain of all.

The restrictions of the land which will for ever preserve the rural charm of Bournville are:—

1. "One tenth (exclusive of roads) . . . shall be laid out and used as parks, recreation grounds and open spaces." [In development of this stipulation, playgrounds for the children exist or are planned within five minutes of every house.]

2. "Dwellings may occupy about one-fourth part of the sites on which they are respectively erected, the remaining portions to be used as gardens or open spaces in connection with such dwellings." [No dwelling is allowed to be more than one storey above the ground.]

3. "No factory shall occupy in area more than one-fifteenth part of the total area of the estate on which it may be built."

Foresight Urgent.

But we shall never secure such beauty and convenience for our suburbs until the planning of whole neighbourhoods ahead of their development is placed in the hands of authorities independent of local interests, as is already done with such success on the Continent.

As things stand, we apply to new districts bye-laws framed for crowded centres, with the result of encouraging what we ought to avoid. The minimum requirements as to space round the houses have become the maximum on new sites as on old, thus inducing the slum; the requirements as to material and construction essential to close-packed towns are unnecessarily applied to country cottages in their own gardens, and choke off private enterprise, reducing the much needed supply. In fact, to make cottage property pay in the country, what is added by law to the cost of building has to be recovered by curtailing the land or the interior accommodation. To encourage suburban or rural industrial housing, therefore, it is essential to increase the requirements as to the provision of land per house, and to relax correspondingly the requirements as to construction.

Equal Distribution of Rate-Burden Necessary.

Another great impediment to the only class of housing that can meet the need is the inducement offered to owners of land in the vicinity of towns or within them to let it lie idle, or practically so, till an increasing population doubles its price, by excusing them from paying rates on its real value. In other words, the house famine is intensified by the same injustice which causes such high rates in town—the unequal distribution of those rates in favour of unbuilt-on land, which only pays half the agricultural rate.

Until this evil is remedied, even the much-needed development of transit from centre to outskirts only means the transfer of the trouble from one point to another, for with new means of access to work the values of land outside go up by bounds, and speculation at once introduces overcrowding to the legal limit, tending also to raise rents till the worker is but little, if at all, better off under the new conditions than under the old.

Powers Possessed.

Even without waiting for further legislation, our local authorities possess adequate powers for present action, especially for the establishment of industrial suburbs on the lines of those described, in Part 3, of the Housing of the Working Classes Act, 1890, and its amendments of 1900 and 1903. Its main provisions have been on the Statute Book since they were passed at the instance of the great Earl of Shaftesbury in 1951, but even yet the general public, and many of those desirous of bringing about improved housing, are unaware of their existence. The most consoling of them all to many will be the condition that before an urban district or town council can raise a loan under this part of the Act, it must satisfy the Local Government Board that its scheme is financially well-judged and sound, and therefore never likely to become a charge upon the rates.

Part III. of the Housing Act of 1890.

But the application of Part 3 has been seriously delayed by its having been made "adoptive"—or in other words, by its being necessary for such local authorities as desire to apply it, to formally adopt it by resolution—which affords a capital opportunity for interested parties to arrest all action under it, and thus deprive the public of its advantages. The larger centres of population, in which it has been possible to bring independent public opinion to bear, have, of course, adopted it, but in many of the smaller places, where it is no less needed, it remains inoperative, an effect no doubt counted upon by those responsible for the "adoptive" clause. But as housing legislation has never been made a party question, the remedy of this fault, as of others, can only be a matter of time.

The Indispensable Steps.

The indispensable steps, if we are as a nation to bring about ideal conditions of labour or housing, and so raise the national standard of efficiency, are as follows:—

1. To regulate and direct the development of growing towns by empowering and ordering independent authorities, such as county councils, to plan their growth under expert advice, reserving from the outset ample thoroughfares and open spaces, while land is yet comparatively cheap.*

2. To limit the housing and factory or warehouse accommodation to be placed in future on land at present unbuilt-on, according to locality, in such a way as to secure for ever a proper environment for all who may dwell or work there.

3. To rate all land at its actual value under the above restrictions, leaving every owner to make his own assessment if desired, on condition that the public may, if need be, purchase at the price so fixed.

4. Where private enterprise does not meet the demand for house room, the local or other authorities to be compelled to make up the deficiency, under Part 3 of the Housing Act and amendments, on lines that shall not compete with private enterprise, but which shall if possible encourage it.

5. To facilitate this by

(*a*) simplifying the process of purchasing land by compulsion.

(*b*) enabling building authorities to borrow money for their purposes from the Treasury at low rates of interest.

(*c*) establishing different standards of construction for (1) urban, (2) suburban, and (3) rural dwellings.†

(*d*) abolishing the necessity of repaying the value of the land out of the rents, and adjusting the terms for the repayment of the cost of building, &c., to the standard employed, *e.g.*, urban, 100 years; suburban, 80 years; rural, 60 years.

Dealing with Public Land.

The fair method of dealing with the land acquired for housing purposes would be for the community to charge the building authorities a nominal ground rent for the term over which the sinking fund on the houses extended, at the end of which it would enter into possession of both. Such ground-rents could, if desired, be sold in the ordinary way, and under a comprehensive scheme decrease in value in one part would be more than balanced by increase in value elsewhere, since so long as the population of the country continues to grow, so must the demand for land on which to live, and consequently its value.

Housing the Poorest.

The most difficult phase of the existing housing problem is the provision of proper homes for the very poorest. It has been shown how the better class artizans can be properly housed on the outskirts on a paying basis, without State financial assistance; but as matters stand at present it is almost impossible to do as much for the unskilled and casual workers who form such an alarming proportion of our citizens whose wages are insufficient to command adequate accommodation. It is, therefore, the more urgent to facilitate the removal from the crowded centres of all for whom provision can be made elsewhere, that urban sites may be freed from their fictitious values, and there may be room to deal effectively with the submerged. Houses now occupied by the removable class will thus be rendered available for them, and clearances of slums may be effected on very different terms from those now commonly accepted. No ultimate solution of this phase of the problem can be hoped for till the lowest regular wages are sufficient to include the rent of proper houses.

* Instead of the present custom of waiting to buy up at fancy prices which burden the rates, when already in the building market or even built upon.

† Where cottages are built at sufficient distances from one another, there is no reason why they should not be of wood, if properly constructed and maintained, as in Central and Northern Europe and North America.

WANTED: A ROYAL COMMISSION.

The Complexity of the Electricity Supply Problem in London Suggests the Desirability of a Royal Commission being Appointed before the Proposals Contained in the New Power Bills are Seriously Considered. How Municipal Enterprise Compares with Company Enterprise, judged by the Latest Financial Results.

WITH eight Electric Power Bills before Parliament at the present moment, the publication just now of the County Council analyses of metropolitan electricity supply enterprises is peculiarly appropriate, and provides the opportunity of obtaining instructive data from which the new proposals may be criticised. A perusal of this London County Council return demonstrates the perplexing confusion into which the electricity supply problem in London has drifted, and suggests the desirability of instituting a thorough official inquiry into all the conditions surrounding it before any such wide powers as are asked for by the new Bills are granted by Parliament.

Sixteen local authorities and thirteen companies possess statutory powers for supplying electricity within various districts in London. The former comprise Battersea, Bermondsey, Bethnal Green, Fulham, Hackney, Hammersmith, Hampstead, Islington, Poplar, St. Marylebone, St. Pancras, Shoreditch, Southwark, Stepney, Stoke Newington, and Woolwich. With the exception of Bethnal Green, where a scheme has been approved, all these bodies are now supplying current.

Complications.

So far, everything is quite simple. The Borough Council is in every case the unit for electricity supply purposes. It is when we come to look at the companies' position that the complications begin. There are, as we have said, thirteen companies, and all of them are subject to the usual purchase clause. Under the present procedure, no Borough Council would be able to acquire an undertaking outside its area. Yet, in London, seven companies supply in the area of more than one local authority. The London Electric Company supplies in nine boroughs; the County of London Electric Supply Company in six; the Blackheath and Greenwich Company in four; the Metropolitan Company in three; the Kensington and Knightsbridge Company in two; the City of London Company in the City and in Southwark; the Charing Cross and the Strand Company in the City and in Westminster and Holborn. The last-mentioned company has power, which it does not exercise, to supply in bulk in Poplar, Bethnal Green, and part of Stepney.

Is Purchase Possible?

Further, the accounts of these companies are not separated for each borough, so that it becomes, for all practical purposes, impossible to ascertain the proportion of business carried on in a specified area by a company whose undertaking is legally purchaseable by the local authority at a specified date. In other words, the acquisition of these concerns by Borough Councils becomes one of the most difficult operations imaginable, unless the conditions are simplified by some such plan as that of allowing the municipal bodies to regard Londoners as a whole for electricity supply purposes. We do not advocate here the making of the County Council the electricity supply authority for London; but we do say that the facts of the present position of affairs demand a Parliamentary inquiry into the London Electricity problem before these new Power Bills are seriously considered.

Finances.

Coming to the figures contained in this interesting London County Council return, we find the following analyses of the financial position of the local authorities' electricity undertakings in London for the year 1903-4:—

Undertaking.	Date of commencement of supply.	Surplus or *deficiency* (−) after payment of interest on debt.	Allocation of surplus. Redemption of loans.	Written off capital expenditure.	Renewal fund—balance at credit of	Reserve fund—balance at credit of	Contribution in aid of *or from* (−) local rates.	Balance of revenue account.
Battersea ...	Sept., 1901	−9,159	2,957(*a*)	—	—	—	—	−12,116
Bermondsey ...	Jan., 1902	−1,769	124	—	—	—	−2,405	512
Fulham	May, 1901	−8,316	9,139	—	2,800 (*c*)	—	−20,297	42
Hackney ...	Nov., 1901	7,591	4,582(*b*)	—	—	7,837	−4,828	—
Hammersmith .	June, 1897	27,884	20,143	2,072	—	2,500	—	3,169
Hampstead ...	Oct., 1894	68,981	34,659	4,819	—	29,503	—	—
Islington ...	Jan., 1896	28,033	26,819	—	1,214	—	—	—
Poplar	Oct., 1900	9,387	2,494	—	—	—	—	6,893
St. Pancras ...	Nov.. 1891	101,614	39,366	10,912	—	38,797	10,220	2,319
Shoreditch ..	June, 1897	18,873	14,655	—	—	1,002	4,427	44
							−1,255	
Southwark ..	July. 1899	77	3,796	—	—	—	−3,943	224
Stepney... ...	Dec., 1899	11,100	1,557	3,042	6,501	—	—	—
St'ke Newi'gton	July. 1902	684	106	—	—	130	—	448
Woolwich ...	Dec., 1901	−6,077	2,899	—	—	—	−6,790	−2,186
Totals... ...		248,903	163,296	20,845	10,515	79,769	14,647	−651
							−39,518	

(*a*) Battersea.—In addition to this amount, £1,622 was paid off loans, being a receipt from the sale of surplus land.
(*b*) Hackney.—This figure represents the amount accrued due, the actual amount paid being only £3,312.
(*c*) Fulham.—Excluding amount of £3,600 received in 1901 from contractors as penalties for delay in completion of work.

A perusal of the above table will show that the usual order of things has been observed in London—the older the undertaking the better its financial results. This is the argument upon which the supporters of company enterprise, as against municipal effort, have scored some of their biggest successes. They say that as an electricity undertaking is almost certain to lose money during the first few years of its existence, the best way is to hand it over to private enterprise—we had almost written "philanthropy"—during that troubled term, taking it back again when it is on a sound financial basis, and when it will put money into the ratepayers' pockets, instead of taking it out of them. Some districts have blessed the companies for their generosity, and have handed over their powers with childish complacency, quite oblivious of the fact that, while the concerns may lose for three or five years, the "benefactors" have got them for ten or twenty, and will net the handsome profits that will accrue after the losing period has been passed.

Perhaps the most significant table in this return, however, is the following:—

	1901-2.	1902-3.	1903-4.
	£	£	£
Total capital raised—			
Local Authorities ..	2,286,292	2,653,649	2,935,051
Companies	9,006,070	10,571,885	11,815,101
Total revenue—			
Local Authorities ...	259,307	329,106	400,668
Companies	1,234,661	1,401,223	1,498,717
Total expenditure—			
Local Authorities ...	173,442	193,909	216,816
Companies	678,905	706,535	716,927
Total interest and dividends paid—			
Local Authorities ...	62,305	79,269	93,019
Companies ...	471,045	559,468	646,834
Surplus after payment of interest and dividends—			
Local Authorities ..	24,324	57,419	90,850
Companies	112,116	175,379	176,009
Number of units sold—			
Local Authorities ...	16,736,056	21,814,306	27,963,137
Companies ...	62,736,054	74,554,163	85,941,921
Average price obtained for private supply—			
Local Authorities ..	3·90d.	3·74d.	3·59d. (a)
Companies	4·57d.	4·40d.	4·34d. (a)

(a) Inclusive of charge for meters.

Company v. Municipal Light.

Here we get some figures that intimately concern the consumer, as distinguished from the ratepayer. We see that he pays three-farthings more per unit for company electricity than he does for municipal electricity—the exact figures are 4.34d., against 3.59d., and we see also that the cheapening of current is proceeding much more rapidly in the latter case than in the former. These facts explain the reason why the companies made profits of £646,834, which went to their directors and shareholders. Local authorities' undertakings do not cater for privileged classes, and so the only figures that approximate with the companies' dividends are the £93,000 which went, not to private speculators, but as a contribution towards the eventual freeing of the concern from any financial liabilities whatever. That is one of the big differences between municipal and company enterprise. With the money the companies are paying in dividends, the ratepayers—so far as their undertakings are concerned—are liquidating capital outlay. Another significant fact is that, while the London local authorities only spent 1.86d. on every unit sold, the companies spent 2d. This is a proof of our oft-repeated statement that local authorities are more efficient and more economical managers than are companies.

Power Charges.

With regard to the charges for power—a question that is pre-eminent just now, in view of the promises of the power companies—the borough councils in many districts already supply current for power purposes at a cheaper rate than the chief power company proposes to supply it. The Administrative County of London and District Electric Power Bill provides that the maximum charge shall be 1½d. per unit. Now, the Fulham Borough Council already supplies current for power and heat at a penny; so does St. Pancras, and so does Stepney. Battersea supplies at 1½d., and is emulated by Hammersmith, whose scale goes down to a penny, too, "in special cases." The Poplar figure is also 1½d., and most of the other borough councils have tariffs which, for power and heat, come down, after a certain point, to below the proposed charge of the chief power company!

BURNLEY ELECTRICITY.

WHAT TO DO WITH THE PROFITS.

THE Electricity Committee of the Burnley Corporation has had before it the results of the present financial year, which comes to a close at the end of the month. On the prices obtained, viz.:—1.75 for traction, 4d. for lighting, 3d. and 1d. for motors, and 3d. for public lighting—the nett profits will exceed £10,000.

The recommendations of the Committee are that the tramways be allowed a rebate for the present year, making the price 1½d.

For the coming year, the charges will be as follows:—

Tramways	1.45d.
Private Lighting (flat rate)...	3½d.
Public Lighting	1½d.
Motors	1¾d.

for the first hour, and 1d. afterwards.

This will bring the average price per unit sold to 1.7d., and the nett profit at £4,000, after allowing £2,500 for depreciation.

The Committee has also decided to purchase more plant, which will comprise a 500 k.w. generator, boiler, and condensing plant.

MUNICIPAL TRADING.*

Clear and Lucid Survey of the Present Position of Municipal Activity: Gas Supply, Electric Lighting, Tramways. What has been Done and what may be Done for the Acquisition of these Undertakings. The Attitude of Parliament in the Past, and Present Day Legislation. Very Few Undertakings of a Commercial Character on which Municipalities may Enter, and these are in the Nature of Necessities.

[*By Mr. EDWARD R. PICKMERE, M.A., Town Clerk of Liverpool.*]

THE expression "trading" as applied to the individual members of a community simply means the buying and selling of the ordinary articles of commerce, and without such an interchange of commodities our social system would come to an end. All municipalities trade in the sense of being purchasers of commodities. Clothing must be purchased for the police; materials, utensils, etc., for municipal works, and many other articles, without which the ordinary work of a municipality could not possibly be conducted. The expression "Municipal Trading" is, however, generally used to signify the provision, and in some cases the sale of something, for the general benefit of the ratepayers, whether such provision or sale results in actual monetary advantage or not.

In the Nature of Necessities.

Parliament has been reluctant to confer general powers upon Municipal Corporations to carry on trading undertakings, and although there are Municipal Corporations which have obtained powers by private Acts of Parliament to carry on certain undertakings of a commercial nature, suitable to the special needs of the particular towns affected, there are really very few undertakings of a commercial character which Parliament has allowed municipalities to enter into, and these, as a rule are in the nature of monopolies, and are such as benefit the whole community, and which could not have been so well carried out by private enterprise—they are, in fact, in the nature of necessaries, such as water, gas, and tramways. I think, however, that we may omit water as a commodity which should be brought within the definition of municipal trading, although the municipal rulers of 1835 would probably have been surprised if a proposition had been made to them that the Town Council of that day should even supply such a necessary commodity as water, and they would have been more surprised had they been expected to supply gas, electric light, and means of locomotion.

Growing Confidence.

Even such matters as were absolutely necessary for the well-being of the town were not undertaken by the old town councils, but were placed in the hands of trustees or commissioners, and if the old corporations had not been reformed, probably municipal trading would still have been kept out of their hands. The reformed corporations have, however, proved themselves to be worthy of being entrusted with so many important duties that by almost imperceptible degrees they have acquired the right to establish and maintain undertakings which in the first instance they were actually or by implication prohibited from carrying on. This new policy has in many respects interfered so much with the company promoter that we find many persons of influence demanding in Parliament and the Press that a check should be placed upon the spending of moneys raised upon the security of the rates in various forms of commercial undertakings, which the anti-municipal trader contends can be more efficiently and economically carried out by private enterprise.

It is not, however, my intention to state the arguments for and against municipalisation, but rather to state what I think to be the general principles governing the subject, and then to show how these principles have been carried out in some of the various undertakings entrusted to the care and management of local authorities.

Three Tests.

If a proposition be made that a municipality should engage in any particular commercial undertaking, the following questions should be asked, viz.:—

1. Is the undertaking likely to conduce to the welfare and advantage of the general body of ratepayers by whom the money required for the undertaking has to be provided?
2. Is it in the nature of a monopoly, and not likely to enter into competition with the rate-paying traders of the district?
3. Would the carrying out of such an undertaking by persons other than the Corporation unduly interfere with the property and health of the ratepayers?

Now, it is quite clear that in relation to the provision of water and tramways, and perhaps, in a less degree, of gas and electricity, the answer to these questions would undoubtedly be in the affirmative, and certainly if these undertakings were carried out by persons or companies they would in many respects interfere with the property, and affect the health, of the inhabitants. I would contend that such undertakings as these are not trades in the ordinary sense of the word any more than baths, wash-houses, and markets are trades. They are clearly for the general benefit of the community, and cannot be so well and satisfactorily provided by any individual or company. A plentiful supply of good water, a supply of pure gas and of electric light at a reasonable price, and cheap transit, tend to make the community healthy and prosperous.

The Joint Select Committee.

Any undertakings which cannot successfully withstand the tests which I have mentioned should be regarded with suspicion, and should only be undertaken by municipal authorities in stress of circumstances, and after full inquiry. The subject has been considered of such great importance that a Joint Select Committee of the House of Lords and the House of Commons was appointed in the month of April, 1900, to consider and report as to the principles which should govern powers given by Bills and Provisional Orders to municipal and other local authorities for industrial enterprises within or without the area of their jurisdiction. This Committee made a very exhaustive inquiry into the subject, but was unable to bring its inquiry to a satisfactory conclusion during the Session of 1900, but reported to the Houses on July 27, 1900, and recommended re-appointment during the next session. The Committee, however, was not re-appointed until June, 1903, and this Committee submitted a report on July 23, 1903. In this report the Committee stated that, in view of the fact that it was not appointed until after Whitsuntide, and was unable to hold its first meeting before June 15, it agreed to devote its attention to one or more distinct aspects of the question, passing by others until Parliament should be pleased to direct further inquiry.

The first branch of the subject with which the Committee decided to deal was that of municipal accounts—with regard to the form in which they were prepared, the system under which they were audited, and the right of access to them by the ratepayers; and the evidence taken was directed to this question. This Committee has not, therefore, as yet given any decision upon the general question of Municipal Trading.

We will now consider the subject of municipal trading generally. The Committee appointed in the year 1900 obtained a large quantity of evidence with regard to the undertakings carried out by municipalities. It is interesting to note the views which were held by witnesses called before the Committee from the various Government departments. The Permanent Secretary to the Board of Trade gave it as his opinion that so far as what he called "monopoly articles" were concerned, Parliament had never made any difficulty in authorising municipal authorities to supply these monopolies, and in this definition he included water, tramways, and gas, and he considered that electric light was only a modified monopoly.

Gas.

With regard to the manufacture of gas, under the Public Health Act, an urban authority is authorised to contract with any person for the supply of gas or other means of supplying light to the streets and other public places, and to provide lamps, with the necessary materials and apparatus, as it may think necessary for lighting the same. It may also supply gas in its district, or in such part of its district, as is not already supplied by an authorised company or person, and may obtain from the L.G.B. a Provisional Order under the Gas and Water Works Facilities Act, 1870, to authorise the undertaking, and by the Public Health Act of 1875, Section 162, a local authority may, with the consent of the L.G.B., for the purpose of supplying gas within its district, purchase by agreement the undertaking of a gas company. Except, therefore, with the sanction of Parliament (by means of a special Act), a local authority is not able (a) to supply gas beyond its district; (b) to compete with an existing statutory, *i.e.*, an authorised, undertaking.

Parliament has laid down a general policy as regards Bills for the compulsory acquisition or purchase of gas undertakings by local authorities:—

1. To compel an unauthorised gas company to sell if past mismanagement or bad supply of gas is proved.
2. When such allegations cannot be substantiated, to refuse to give the local authority compulsory power to purchase, but in certain cases, where very strong local feeling exists, Committees of the Houses have brought pressure upon the company to induce them to agree to sell upon favourable terms.
3. In the case of an authorised gas undertaking, to refuse compulsory purchase.
4. In no case to allow a local authority to compete with an existing gas undertaking.

It may be said, generally speaking, that only some of the smaller local authorities have availed themselves of the provisions of the sections of the Public Health Act, 1875. Most local authorities appear to have obtained their powers by means of special Acts, and in many of these cases power to supply outside districts has been obtained. In obtaining these Acts, Parliament has allowed the local authority to supply, sell, let for hire, and otherwise deal in gas meters, fittings, etc., but has not usually allowed them to manufacture such articles. The special Acts also usually fix the maximum price which the local authority may charge for gas, and prescribe the illuminating power to be maintained, and when power is given to a local authority to supply gas outside its district it is usually allowed to charge a higher price to the consumers in such district, but the outside authority is usually empowered to purchase the portion of the undertaking within its own area on

* A Lecture delivered at the Municipal Offices, Liverpool, for the Liverpool Board of Legal Studies.

obtaining the sanction of the L.G.B. and Parliament to such purpose.

Gas Statistics.

From the return which was prepared in March, 1899, there were 222 authorised gas undertakings in the United Kingdom belonging to the local authorities. The loans raised for the purpose of these undertakings amounted to £28,614,971, of which £6,744,715 had been repaid or set aside in sinking funds. In about one hundred cases the local authority had been authorised to supply gas beyond its own district. In forty-eight cases the profits were insufficient to meet the interest and other payments, and the surplus would no doubt have to be made up out of the rates. It is interesting to note that the average receipts per 1,000 cubit feet of gas sold was in the case of local authorities a little over 3s., as compared with 3s. 6d. received by companies. It will appear from this that the price charged was higher in the case of companies than local authorities, but the Board of Trade remarked upon this point that in making such a comparison it should be borne in mind that the districts served by local authorities are usually the most populous, and, therefore, the most remunerative.

About seventeen corporations made a net profit of over £10,000 per annum during the year ended March 25, 1899, and as these corporations included Birkenhead, Birmingham, Bolton, Leeds, and Manchester, there is no doubt that if the Corporation of Liverpool had been originally the gas supplier to the city the undertaking would have been very remunerative. It is interesting to read the conflicting statements made by the various witnesses who appeared before the Committee as to the relative advantages of the municipal supply of gas and of that supplied by companies, according to the class of witnesses whose evidence was taken.

(To be continued.)

FEEDING SCHOOL-CHILDREN.

A GOVERNMENT INQUIRY.

THE President of the Board of Education has appointed, with the concurrence of the President of the Local Government Board, the following an Inter-Departmental Committee:—

1. To ascertain and report on what is now being done, and with what result, in respect of medical inspection of children in public elementary schools.

2. And further, to inquire into the methods employed, the sums expended, and the relief given by various voluntary agencies for the provision of meals for children at public elementary schools, and to report whether relief of this character could be better organised, without any charge upon public funds, both generally and with special regard to children who, though not defective, are, from mal-nutrition, below the normal standard:—

Mr. H. W. Simpkinson, C.B., Assistant Secretary of the Board of Education, Chairman.
Mr. H. Franklin Parsons, M.D., Assistant Medical Officer under the Local Government Board.
Mr. C. Jackson, Chief Inspector of Elementary Schools under the Board of Education.
The Hon. Maude Lawrence, Chief Woman Inspector of the Board of Education.
Mr. R. Walrond, Senior Examiner of the Board of Education,
with Mr. E. H. Pelham, Junior Examiner of the Board of Education, as Secretary.

At a meeting of the St. Helens Health Committee on Wednesday, the Medical Officer presented a report on the common lodging-houses of the town, of which there are eleven, providing accommodation for 330 persons. None of them, he said, have been built as lodging-houses. It was decided to procure information as to the cost of erecting and working municipal lodging-houses.

NOTES AND ANSWERS.

The Law as to the Letting of Corporate Property to a Local Councillor. Can a Poor Law Officer Barter Away the Rations Allowed Him? Actual Powers of a District Auditor in Regard to Enforcing Alterations in Keeping Stores Accounts. The Validity of Objections by an Urban District Council to Alterations of Buildings. The Extent of the Authority of Town Councils to Appoint Overseers. The Election of Elective Auditors.

[BY A BARRISTER.]

668.—POOR LAW—Tenders for Supplies to Workhouses—Acceptance by Guardians.

At a meeting of the board of guardians for D——, held last Friday, three tenders for meat were handed to the chairman by the clerk. The lowest read was accepted, and before the session ended the seal of the guardians was stamped on it, as usual. Whilst the members were dispersing a fourth tender was found, which had fallen under the clerk's table, and was handed to him. During the same day, when the fourth tradesman—who had served the guardians well for two years—found that his tender had not been read, he waited on several guardians, stating that he sent his tender to the clerk's office before the expiration of the prescribed time limit, and that his prices were lower than the other prices which had by this time been published.

An extraordinary meeting was called by seven members, and held on the following Tuesday. No communication had in the meantime been made to the accepted tenderer. At this meeting the clerk advised the members that, regrettable as the circumstance was—"As the accepted tender had the guardians' seal on it, the Board would be liable to costly litigation if the matter should on being re-opened reverse the decision as to the tenders. A resolution to reconsider the three tenders with the fourth was thereby defeated. I beg to ask if the clerk's advice was absolutely correct, and if any way out could have been suggested, as it would appear a wrong had been done to the ratepayers and an injustice to the tradesman.—"B."

The contract is concluded and becomes binding on both parties when the tender or offer of the tradesman is agreed to and accepted by the guardians under their seal. The guardians could not legally rescind their acceptance at the extraordinary meeting which was held to consider the accidental overlooking of the lowest tender. If they did so, they would be liable in damages at the suit of the tradesman whose tender was accepted originally. We may here mention that the guardians are not bound to accept the lowest, or, indeed, any tender from amongst those sent in in response to their advertisement, and the party whose tender has been overlooked has no remedy until the present contract expires, and public tenders are again invited, when his opportunity will return again.

669.—NUISANCE CAUSED BY OLD GRAVE-YARD—Remedy.

I enclose sketch of a chapel which measures 3ft. by 60ft. It has rain-water troughs all round, and drain pipes on the west and south sides discharge the rain-water down the pipe marked in red ink. This is connected with butt-ended pipes, not socketed, and led by them across two or three graves and discharges the water where it can among the graves. I should have said it is a burial ground as well, and is still used. Quite recently I know it happened to be a wet day when there was a funeral and actually the coffin floated. I contend that this is a nuisance and a menace to the public health. Yet two members of the council oppose me (one the the minister of the chapel), and things are a bit lively. The other member used unparliamentary language to me, so that I am quite interested in your reply to Query 651. The only Act I can find for this case is the Cemeteries Clauses Act, 1847, Clause 18. Can it be used in this case? This chapel was built in 1817. There are houses on the opposite sides (3) of this burial ground, and all have wells, there being no waterworks here. The soil is chalk marl and sand mixed.—"Puzzled Public Official."

In the query our correspondent refers to (No. 651 in our issue of the 10th inst.), we dealt with the liability of persons who use bad language, &c., and generally obstruct sanitary officers in the discharge of their duties. Sec. 18 of the Cemeteries Clauses Act of 1847, mentioned in the query, provides, that a company (a local authority) owning a cemetery shall make all necessary and proper sewers and drains in and about such cemetery, for keeping the same dry, and it may cause any such sewer or drain to open into any existing sewer (subject to certain consents and conditions). That Act was incorporated in the Public Health (Interments) Act of 1879, which latter Act is to be construed as one with the Public Health Act, 1875. Thus the provisions of the Act of 1847 are part of the general sanitary law; they do not, however, apply to burial grounds, such as the one now in question, which was in existence long before any of these Acts, and is not owned either by a company or a local authority. Whether a nuisance exists in any particular case is a question of fact, which can only be decided when all the circumstances are taken into consideration. It is the duty of the local authority to cause the district to be inspected from time to time, with a view to ascertain what nuisance exists calling for abatement (Sec. 92 of the Public Health Act, 1875). On the information submitted we should doubt whether the case amounts to a nuisance, either at common law or under the Public Health Acts. Should however, the overflow of water percolating through the graveyard pollute the wells from which the neighbouring houses obtain their water supply, the chapel trustees would apparently be liable to the occupiers of the houses for such pollution ("Ballard v. Tomlinson" 29 Ch.D. 115 [1885]).

670.—INSTITUTE OF MUNICIPAL TREASURERS AND ACCOUNTANTS—Qualifications for Membership.

I should esteem it a favour if you could kindly inform me the qualifications necessary to become a member of the Institute of Municipal Treasurers and Accountants.—"Carpe Dies."

Candidates for membership of the Institute of Municipal Treasurers and Accountants must pass certain examinations and pay certain fees. Before sitting for the preliminary examination they must have had three years' experience in the financial office of a municipal or other local authority. After passing this, they are entitled to sit for the final after the lapse of two years. The preliminary includes the following subjects:—Book-keeping and Accounts of Municipal Local Authorities, Local Authority Finance, Auditing, and Arithmetic; it also includes a law section, comprising the ordinary law subjects and also municipal and local government law. The final is on the same lines, but more advanced. The next examinations will be held in June, and the fees payable are £1 1s. for the preliminary and £2 2s. for the final. Members pay an annual subscription of one guinea and a half. For further information, application should be made to the Hon. Secretary (Mr. J. Beckett), the Town Hall, Accrington.

671.—TOWN CLERK OF METROPOLITAN BOROUGH COUNCIL—Must he be Qualified as a Solicitor?

The town clerk of the metropolitan borough in which I reside is not qualified as a solicitor, and consequently a solicitor has to be retained at an annual fee, to perform such legal duties as may arise from time to time in connection with the council's work. I, together with numerous other

ratepayers, have always been under the impression that, in order to hold the office of town clerk, it was imperative to be qualified as a solicitor. I shall be greatly obliged if you will, through the medium of your excellent journal, kindly enlighten us on this subject?—"Zetetic."

Neither metropolitan nor provincial borough councils are bound to appoint solicitors or barristers as town clerks. It is convenient that the town clerk should be a solicitor, and in many cases, especially outside London, he is so qualified. The borough council, however, has in each case an unfettered discretion as to whom it shall appoint, and what qualifications shall be required. A town clerk who is a solicitor, and acts as such for his council, would ordinarily be paid at a rate which would include an allowance in respect of his legal services.

672.—ELECTIVE AUDITORS.

(1) Can you kindly give me the usual course of procedure to object to these auditors?

(2) Can you quote a few places where they are paid, and also where not paid, and fees if possible (by the Act it states a fee of not less than two guineas a day)?

(3) Our council is now going to appoint a firm of accountants at a fee of 100 guineas; I suppose, to whip these men up, and show them how to do a little bookkeeping.

It seems to me a terrible and scandalous waste of the ratepayers' money. I do not object to (3); in fact, I consider them the only competent people to handle the accounts.—"S. X."

(1) Elective auditors are elected ordinarily on the 1st of March in each year, and it is their duty, acting with the auditor appointed by the mayor, to audit the borough accounts (other than its accounts as an education authority). The extent to which they can go into these accounts is not clear; the question need not, however, be entered into here. Elective auditors must be qualified to be councillors, but may not be councillors. They must be fit and proper persons elected by the burgesses from those enrolled or entitled to be enrolled as a burgess. If there has been bribery, corrupt practices, or personation, in connection with the election; or, if the person elected was, at the time of election, disqualified for office, or did not obtain a majority of lawful votes over his rival, then the election may be questioned by an election petition presented by four of more electors, or by a rival candidate. The petition, which must be in the prescribed form, is presented to the King's Bench Division of the High Court within twenty-one days after the election was held, or (in cases where corrupt practices are alleged), within twenty-eight days; so that now in most cases it would be too late to present a petition. Apart from these provisions, any person who acts in a corporate office without being qualified, or after ceasing to be qualified, or after becoming disqualified, is liable for each offence to a penalty of £50, recoverable by action. An action to recover this penalty can only be brought by a burgess, and shall not be unless the plaintiff has, within fourteen days after the cause of action arose, served a notice personally on the party liable. See Sec. 224, &c., Municipal Corporations Act, 1882.

(2) The borough auditors are *entitled* to fees, not being less than two guineas a day, for every day in which they are employed in auditing the accounts of a council, acting as an urban sanitary authority (Sec. 246, Public Health Act, 1875). They cannot claim fees for auditing the accounts of the borough acting as a municipal corporation, though such fees may apparently be paid by the council.

(3) Many of the large boroughs employ and pay chartered accountants to audit their accounts; sometimes this is done under special powers contained in local acts. In other cases this is done without any such special power, and it is doubtful whether the expenditure involved can be regarded as legally incurred. Clause 12 of the Fifth Schedule (Part 2) of the Municipal Corporations Act, empowers any town or city council to pay, by order of the council, any "expenses not by this Act otherwise provided for, necessarily incurred in carrying this Act into effect." We believe that in some cases this provision is relied on as legalising the expenditure in question. It seems to us, however, that such an interpretation of the provision is forced and open to question.

673.—CORPORATE PROPERTY LET TO A MEMBER OF THE COUNCIL—Is this Legal?

The corporation of D owns a warehouse which has for some time been let to an auctioneer at the rent of £18 a year. He has now given it up, and the corporate property committee has let the said warehouse to one of the members of the council who is a member of the corporate property committee at the rent of £12 10s. This has been done without advertising or giving anyone else a chance of hiring the warehouse. Is this proceeding legal?—"L. A. G."

Generally speaking, a town council may not lease, or agree to lease, sell, mortgage, or alienate corporate land (including buildings), without the approval of the Local Government Board. This rule does not apply, however, to leases for a term not exceeding thirty-one years, or, in certain cases, as where the greater part of the yearly value of the property consists of buildings, to leases for a term not exceeding seventy-five years. We presume that in the present case the lease is a short-period one, probably only for a few years, and that no question of sanction by the central authority arises. The councillor referred to is within his rights in contracting with his counsel for the lease of the warehouse. Usually, interest in any contract with the counsel would disqualify for office, but dealings such as that in question are specially exempted from this disqualification by Sec. 12 (2) (a) of the Municipal Corporations Act. Sec. 22 (3) of the same Act, however, forbids a councillor voting or taking part in the discussion of any matter before the council in which he is directly or indirectly interested. The council is not legally bound to advertise the property before leasing it. But it must be obvious that to let property to a councillor at a lower rent than that previously given for it, and without allowing anyone else an opportunity of making an offer in the matter, cannot, in the absence of special circumstances, be regarded as a fair proceeding. We would suggest that our correspondent should approach his representative on the town council, with a view to having a question asked at the next council meeting, as to the circumstances under which the letting took place in this case.

674.—BOROUGH FINANCE AND ADMINISTRATION.

Will you kindly set out a statement of the principal services, &c., controlled by an imaginary progressive county borough council, showing the general statutory authority for each, and the fund or rate to which the expenses or profits in each case are, in the end, allocable? Will you also further indicate by asterisk, &c.—services not dealt with by non-county boroughs; and services also dealt with by district councils not being borough councils?—"Examinee."

We doubt whether our correspondent realises quite the time, space, and trouble which would be required in order to deal adequately with his question. To answer it would involve a careful analysis of a score or more lengthy Acts of Parliament. Much information on the lines indicated would be obtainable from the printed abstract of the published accounts of a county borough. This might be compared with the abstract of accounts of an ordinary borough. These abstracts are usually easily obtained on payment of a small fee. A reference to the Municipal Corporations Act of 1882 (Rawlinson's or Arnould's edition), will show the chief services which are paid for out of the borough fund and rate. To ascertain the principal services which are paid for out of the General District Rate, both in boroughs and in urban districts, the Public Health Acts, particularly that of 1875, must be referred to (see Lumley's, or Glen's edition; or Gache's small handbook on the subject). The expenses under the Education Act of 1902 are payable in the case of boroughs, out of the borough fund and rate, and in the case of an urban district, out of the poor-rate. County boroughs, we may add, as distinct from ordinary boroughs, have most of the powers conferred on county councils by the Act of 1888. If our correspondent will indicate any specific point with regard to which he finds a difficulty, or desires advice, we shall be pleased to deal with the matter further.

675.—ACCOUNTS OF METROPOLITAN BOROUGH COUNCIL—Powers of District Auditor.

A metropolitan borough carries out nearly all its works by direct labour, and consequently deals with a very large quantity of stores and plant. The district auditor has expressed dissatisfaction with the method of keeping the stores account, and has stipulated that a statement shall be prepared at the end of a financial period showing each class of material purchased, the amount used, and the balance left, and that this balance must agree with the amount actually in stock, or failing that, the deficiency or surplus must be explained. To adopt the auditor's suggestions in their entirety will necessitate an increase of staff. The responsible official of the borough concerned takes the line that if all reasonable care be exercised to keep the books correctly, the auditor should be satisfied with the result, whether the stock balance agrees or not, provided there is no alarming shortage. I should be very glad if you could inform me what actual power the district auditor has in a matter of this kind.—"Raductio."

Sec. 14 of the London Government Act, 1899, provides that the accounts of metropolitan borough councils and their officers shall be made up, and audited, in like manner, and subject to the same provisions as the accounts of the London County Council, and the statutory provisions applicable to the audit of the accounts of the latter shall apply to the accounts of these borough councils. This enactment applies, therefore, to such councils the provisions of Secs. 71 to 73 of the Local Government Act, 1888, and of Secs. 247 and 250 of the Public Health Act, 1875, relating to audit. Under Sec. 71 (1) of the Act of 1888, the Local Government Board is empowered to prescribe the forms of accounts to be kept. Hitherto, forms of accounts have not been prescribed for borough councils, other than the form of annual financial statement to be submitted to the auditor; and in the absence of specific authoritative direction on the subject, the borough councils are left largely to their own discretion. Apparently, there is no statutory or other provision authorising the district auditor to direct a borough council or its officers to keep its accounts in a particular form. He can insist on accounts, duly made up and balanced, being produced (Sec. 247 [4] of P. H. Act, 1875), and may make suggestions as to alterations and amendments in the form of accounts in use, but, subject to this, the authority to direct an alteration in the forms adopted is reserved for the L.G.B. If any question should arise, reference may be made to that department. We do not gather from our correspondent's query what forms of store accounts are in use, and what forms the auditors require to be adopted. If a discrepancy appear between the balance of stock as shown in the accounts and that appearing to be in store according to the stocktaking statements, there may be ground for surcharging the party or parties responsible with the value of the difference, in pursuance of the power contained in Sec. 247 (7) of the P.H. Act, 1875, which provides that the auditor "shall charge against any person accounting the amount of any deficiency or loss incurred by the negligence or misconduct of that person." But there might be considerable practical difficulties in applying this provision in the case suggested, especially if the shortage or deficiency is not serious. On the other hand, the district auditor in or for the metropolitan boroughs is a man who has had a wide experience of accounts, and is not likely to lightly suggest forms of accounts involving an additional staff and expenditure. His suggestions are, therefore, entitled to serious consideration, and if, after this has been given, the responsible accounting officials of the borough are not able to see their way to adopt them, the best course would be to lay the matter before the Local Government Board.

(*Continued on Page 280.*)

Official Advertisements.

BOROUGH OF PORTSMOUTH.

CLERK IN BOROUGH TREASURER'S DEPARTMENT.

APPLICATIONS are invited for the appointment of a CLERK in the Borough Treasurer's Department. The salary will commence at £80 per annum, and will rise by annual sums of £10 to £120 per annum, provided the duties are carried out to the satisfaction of the Borough Treasurer.

Candidates must not be less than 21, or more than 26 years of age, and must have a knowledge of double-entry Book-keeping, and also be efficient in shorthand and typewriting.

Applications in writing, marked "Application for Clerkship," stating age and occupation, and accompanied by testimonials, to be delivered to the undersigned not later than 10 a.m. on Tuesday, the 4th April, 1905.

Personal canvassing will be a disqualification.

ARTHUR E. BONE,
Borough Treasurer.

Town Hall, Portsmouth,
20th March, 1905.

BOROUGH OF HOVE.

TENDERS FOR TAR PAVING AND IRON FENCING.

TENDERS are invited for providing and laying TAR PAVING on King's Gardens Esplanade, and providing and erecting IRON FENCING and PIERS by side of path adjoining.

Further particulars may be obtained, and Plans and Specification seen at the office of the Borough Surveyor (Mr. H. H. Scott).

The lowest or any tender not necessarily accepted.

Tenders on forms supplied addressed to the undersigned and endorsed "Tender for Tar Paving," or "Tender for Iron Fencing," as the case may be, will be received up to 5 o'clock on Wednesday, 5th April next.

H. ENDACOTT,
Town Clerk.

Town Hall, Hove,
11th March, 1905.

PARISH OF LAMBETH.

TWO RELIEVING OFFICERS.

THE Guardians of the POOR of the Parish of Lambeth hereby invite APPLICATIONS for these positions.

Applicants, who must possess a thorough knowledge of the duties of the office, must be between 25 and 40 years of age.

The commencing salary will be £150 per annum, subject to the statutory deduction under the Poor Law Officers' Superannuation Act, 1896.

The Relieving Officer must devote his whole time to his duties, and must be fully competent to discharge the same in accordance with the Orders of the Local Government Board, must give security in the sum of £100, and must reside within the District to which he may be appointed.

Printed form of application will be sent on receipt of stamped addressed, foolscap envelope.

Application is to be made by means of such form, and in no other manner, and must be sent to me on or before Monday, the 3rd proximo.

Canvassing the Guardians, either directly or indirectly, is strictly forbidden, and will be deemed a disqualification.

By Order of the Board.

R. GREENWOOD,
Acting Clerk.

Guardians' Board-room and Offices,
Brook Street, Kennington, Road, S.E.
17th March, 1905.

WANTED, Gentleman having good connection with Borough Surveyors and Architects in London, to take agency for a speciality. Apply by letter only.—J. P. ALLEN, Kenilworth Hotel, Great Russell Street, London, W.C.

Official Advertisements.

COUNTY BOROUGH OF WOLVERHAMPTON

ART MASTERSHIP.

THE Local Education Authority require an ART MASTER to take the general management of their School of Art, and the Corporation require the same person to act as Curator of their Art Gallery. Commencing salary (inclusive) for both offices, £300 per annum, rising by annual increments of £25 to a maximum of £375 per annum.

Candidates must be duly qualified as Art Masters, according to the rules and regulations of the Science and Art Department, and must also have had experience in teaching design metal work and enamelling. The person appointed will be required to enter upon his duties on the 1st June next, and will not be permitted to hold any other appointments or to take private pupils without permission.

Sealed applications, accompanied by not more than three recent testimonials, addressed to the Chairman of the Education Committee, Town Hall, Wolverhampton, endorsed, "Art Mastership," must be sent in not later than the 10th April next.

Personal canvassing of the members of the Education Authority will be deemed a disqualification.

HORATIO BREVITT,
Clerk to the Education Authority.

Town Hall,
Wolverhampton,
21st March, 1905.

COUNTY BOROUGH OF SOUTHAMPTON.

TO ADVERTISEMENT CONTRACTORS.

THE Corporation invite TENDERS for the sole right of ADVERTISING on their Tramcars for a period of five years from the 24th June, 1905, upon the terms and conditions of the form of Tender which may be obtained upon application at the Town Clerk's Office.

Tenders upon the prescribed form endorsed "Advertisements, Tramcars," must be delivered to the Town Clerk before 2 p.m. on the 3rd proximo.

No pledge is given to accept any tender.

By order.

R. R. LINTHORNE,
Town Clerk.

Town Clerk's Office,
Municipal Offices, Southampton,
21st March, 1905.

COUNTY BOROUGH OF HALIFAX.

CLERK, TRAMWAYS.

THE Tramways Committee invite Applications for the post of CHIEF CLERK in the Tramways Offices, whose duties will cover the whole of the clerical work, except that of the Cashier's Department. Salary, £2 5s. 0d. per week. Preference will be given to one who has had experience in similar work.

Applications, in the handwriting of candidates, stating age and experience, accompanied by copies of not more than three recent testimonials, and endorsed "Clerk, Tramways," must be sent to the undersigned on or before Wednesday, 29th March, 1905.

Canvassing Members of the Committee will be deemed a disqualification.

KEIGHLEY WALTON.
Town Clerk.

Town Hall, Halifax,
17th March, 1905.

RUTLAND EDUCATION COMMITTEE.

WANTED.—RESPONSIBLE CLERK in County Education Office. Duties to commence 12th April. Must be good typist, having some practical knowledge of shorthand. Salary, £25 per annum. Applications (endorsed "Clerk") in applicant's own handwriting, with testimonials, to be sent to Education Secretary, Oakham.

Official Advertisements.

CITY OF BIRMINGHAM.

TRAMWAYS DEPARTMENT.

THE Tramways Committee of the City Council are prepared to receive TENDERS for the Supply, Delivery, and Erection of 200 Electric Tramway Cars.

A form of Tender, with Instructions, General Conditions, Specification and Drawings, can be obtained on application at my Office, on payment of £2, which will, after the Committee shall have come to a decision upon the tenders received, but not before, be returned to the Tenderer, provided he shall have sent in a *bonâ-fide* Tender.

Tenders must be enclosed in a sealed cover, addressed to the Chairman of the Tramways Committee, and endorsed in the left-hand corner, "Tender for Rolling Stock," and be delivered at the Council House, Birmingham, not later than 10 o'clock a.m. on the 4th day of April, 1905. No tender will afterwards be received.

The Committee do not bind themselves to accept the lowest or any Tender.

ALFRED BAKER,
General Manager.

254a, Corporation Street,
Birmingham.

AGENTS REQUIRED in unrepresented districts for the Imperial Accident, Live Stock, and General Insurance Co., Ltd. Estd. 1878. Departments: — Personal Accidents, Carriage and Drivers' Accidents, Horse and Cattle Insurance. Claims paid £300,000. Address Mr. B. S. Essex, Manager, 17, Pall Mall East, London, S.W.

"THE SCHOOL MANAGER."

A WEEKLY NEWSPAPER

FOR

EDUCATIONAL ADMINISTRATORS

ONE PENNY WEEKLY.

Indispensable to Members of Municipal and County Councils and especially to Members of Educational Committees.

SUPPLIED BY ANY NEWSAGENT.

"I consider it a marvellous educational pennyworth that ought to be in the hands of every educational authority in the country."—CHAIRMAN OF A TYNESIDE EDUCATION COMMITTEE.

"I am doing all I can to push THE SCHOOL MANAGER, which has more real, live news in it than any other paper."—SECRETARY OF A COUNTY BOROUGH EDUCATION COMMITTEE.

5 & 6, Johnson's Court, Fleet Street,
LONDON, E.C.

Demy 8vo, Cloth Boards, price 5s. net, post free.

RATEABLE MACHINERY

By GEORGE WASTALL, F.S.S., Rating Surveyor, &c

Invaluable as a work of reference to Rating Authorities, Guardians of the Poor, County and Borough Councils, Railway, Tramway, Electric Lighting, Gas and Water Companies, Solicitors, Surveyors, Auctioneers Manufacturers, and all users of machinery.

London: Philip Allen & Co., 87, Chancery Lane, W.C

DELICIOUS COFFEE.

RED WHITE & BLUE

For Breakfast & after Dinner.

In making, use LESS QUANTITY, it being so much stronger than ORDINARY COFFEE.

SUN FIRE OFFICE

FOUNDED 1710

SUN FIRE OFFICE

HEAD OFFICE:
68, Threadneedle Street, London, E.C.

Branch Offices in London:
60, Charing Cross, S.W.
332, Oxford Street, W.
40, Chancery Lane, W.C.
4, Mincing Lane, E.C.

BIRMINGHAM .....10, BENNET'S HILL.
BRISTOL..... CORN STREET.
LEEDS.....SUN BUILDINGS, 15, PARK ROW.
LIVERPOOL.....SUN BUILDINGS, 6, CHAPEL-ST.
MANCHESTER..... 71, KING STREET.
NEWCASTLE..... 19, COLLINGWOOD STREET.
EDINBURGH.....40, PRINCES STREET
GLASGOW..... 42, RENFIELD STREET.
DUBLIN .....10, TRINITY STREET.

Funds in Hand, £2,535,800.

TO MUNICIPAL AUTHORITIES.

First-class Orchestras, Military Bands, and Concert Parties provided *at minimum rates* for every kind of function, or for Season.

J. HERBERT JAY,
10 & 11, Jermyn Street, Piccadilly.
Telephone—6534 Gerrard.

WARD & MACONIE,

15, HANOVER STREET, LONDON, W.

Municipal Robe Makers and Court Tailors.

PRICE LIST ON APPLICATION.

"I firmly believe that if the children were well fed our workhouses, gaols, and asylums would soon be empty."—SIR JOHN GORST, M.P.

PLASMON COCOA.

Equals in nutriment ½lb. of Beef or 10 Cups of ordinary Cocoa, ***and is absolutely free from chemicals.***

Aids Digestion. Braces the Nerves. Invigorates the System.

PLASMON COCOA

In tins 5d., 9d., 1 4, and 2 6.

Contractors to H.M. Government and the Metropolitan Asylums Board.

TO SUBSCRIBERS.

REVISED SUBSCRIPTION RATES for the New and Enlarged Series of the "Municipal Journal" (commenced 3rd March).

FOR THE UNITED KINGDOM.
Post free.

Three Months	2s. 5d.
Six Months	4s. 9d.
Twelve Months	9s. 6d.

ABROAD.

Six Months	6s. 6d.
Twelve Months	13s. 0d.

Cheques and Postal Orders to be made payable to EDWARD LLOYD, Limited, 12, Salisbury-square, London, E.C., and crossed London and "Westminster Bank."

An admirable Food of the

EPPS'S

Finest quality and flavour.

COCOA

Nutritious and Economical.

MUNICIPAL JOURNAL

FRIDAY, MARCH 24, 1905.

NOTES AND COMMENTS.

"Reform" by Resolution.

THE "Proposed Bill for Restricting Municipal Borrowings," to some weaknesses and eccentricities in which we drew attention last week, does not seem to have set the country on fire, as its fond author, Mr. J. H. Worrall, A.C.I.S., the managing director of the London Mercantile Chamber, Limited, doubtless anticipated. Beyond serving as a source of amusement to readers of the *Municipal Journal*, the measure appears to have fulfilled no useful purpose whatever. It is not even acceptable, apparently, to Mr. Beckett Faber, M.P., who proposes to solve the problem of what is called "municipal extravagance" by moving the following resolution in the House of Commons on Tuesday next :—

> That the accounts of all municipalities shall be audited once a year by a Government auditor; that it shall not be lawful for any such auditor to certify for an overdraft from a bank or a loan of any amount to a municipal body, if such loan is repayable within less than three years, and upon less than six months' notice.

There are many reasons why Mr. Beckett Faber should take a warm interest in this subject of municipal trading. The *Directory of Directors* informs us that he is a director of the—

London and North-Western Railway Company,
Sun Insurance Office, and
Sun Life Assurance Society.

Our old friend, *Hazell's Annual*, adds that Mr. Faber is chairman of the English County Bankers' Association, so that if he gets an opportunity to move his resolution on Tuesday he may be taken as representing for the time being the railway companies, which complain of municipal tramways competition; the insurance Trust, which has a positive hatred against the Municipal Mutual Insurance, Limited; and the banking community, which has already adopted retaliatory measures against those corporations that have had the temerity to adopt the small loans on deposit system.

A Funny Move.

WHEN Mr. Beckett Faber next Tuesday descants upon the crimes of the municipalities, therefore, we shall be certain that the honourable Member possesses special facilities for securing exact information on the subject, and that the matter is one in which he takes a deep personal interest. If his motion is reached, Mr. Faber will probably be surprised at the reception it will meet with. He will find that these terrible municipalities will not object at all to a competent audit, but that in the interests of efficiency, simply and solely, they will object to the Government audit, if by that term is meant the Local Government Board audit. With the example of Holborn before it, we do not think that opinion in the House of Commons is at the present moment undividedly in favour of the Local Government Board audit. Even Mr. Walter Long's confidence in the system must have sustained a severe shock, and Mr. Gerald Balfour may be expected to hold different views to his predecessor on the question. Perhaps at the annual dinner of the Association of Municipal Corporations next week he may be able to indicate what those views are. A professional audit, by all means, if only to save us from the misrepresentations and perversions of railway and insurance directors and bankers! But in the interests of the purity of municipal finance we heartily protest against the extension of the Government audit system on its present lines. The Local Government Board audit has lost the confidence of all concerned in the administration of local government, and so long as it remains in its existing form it reflects discredit upon the enterprises whose finance it is supposed to supervise. The time is not ripe just now, but in a future issue we propose to examine the question of how this audit has emerged from the Holborn scandals.

The Government Attitude.

THE anxiety of the Government for the purity of municipal administration can scarcely be so acute as some of its supporters represent, or the request of Mr. Bamford Slack for an inquiry into the Holborn scandals would not have been refused. Mr. Slack asked the President of the Local Government Board on Tuesday whether his attention had been called to the irregularities in the municipal government of the borough of Holborn, and whether, although a committee of inquiry had been appointed by the borough council, the Local Government Board would be prepared to investigate and conduct a public inquiry into

a matter of such great and general public interest. According to the *Times*, the following answers were given :—

Mr. Gerald Balfour: I am aware of the irregularities in the accounts of some of the officers of the borough council, and I have seen the reports of the district auditor on the subject. The audit is still proceeding, and at the present time I have no authority to direct an inquiry in relation to the irregularities referred to.

Mr. Slack asked whether two or three representatives of the Local Government Board would take part in any inquiry if locally instituted.

Mr. Gerald Balfour said it would be for the Borough Council to make any representation to that effect, and it would be considered.

Seeing that many prominent supporters of the Government have been attacking the administration of municipal corporations and their methods of finance for some years, it is scarcely credible that the authorities should decline the opportunity of making an exhaustive inquiry into this squalid business. There has already been far too much secrecy observed by the Borough Council in regard to this matter, and it is due to the ratepayers of Holborn not only that the responsibility should be traced, but that the public should know upon whom that responsibility lies.

Municipal Milk Legislation.

IT is curious how the trade journals always take the wrong line—from the public standpoint—when agitations arise with the object of putting an end to national scandals. The condition of our milk supply is one of these scandals, the facts of which are so notorious that even the least intelligent amongst milk consumers are thoroughly conversant with them. A few municipal bodies have taken the matter into their own hands, and have established milk depots with such successful results that a case has been abundantly made out for a general enabling Act empowering all local authorities to take similar action. As we have previously recorded in these columns, Mr. Thomas Lough, M.P. for West Islington, has introduced into Parliament a Bill to make it lawful for the council of any metropolitan borough to establish and maintain a milk depot out of the general rate, for the. preservation, sterilisation, and sale of milk and cream. Instead of urging its readers, who are presumably milk purveyors, to put their businesses on a basis that will render the establishment of municipal milk supplies unnecessary, the *Dairy World* calls upon dairymen to "resist to their utmost this insidious attack upon their livelihood." It talks as though the sole object of Mr. Lough's Bill is to appropriate the profits of these dairymen. The *Dairy World* probably knows more about the tricks of the trade than we can tell it, and the interests of the tradesmen would be better served if a little healthy advice were printed by this trade organ. As for the public, they know too much about these matters to be led away by such a specious plea as that this Bill of Mr. Lough's is an insidious attack upon the livelihood of dairymen. It is the dairymen themselves who have jeopardised their calling.

Trading at Leicester.

TAKEN as a whole, the past year's municipal trading at Leicester has been very satisfactory. The gas, electricity, and water enterprises have produced a nett profit of £72,028 13s., after paying interest and putting aside various sums towards the sinking funds. In addition to the undertakings named, the Corporation owns the electric tramways, which have already yielded an additional profit of over £13,000 in less than twelve months' working. The profits from the gas undertaking were exceptionally large, and after paying interest and providing a sinking fund, the nett balance handed over in relief of the rates of the town reached £49,008 2s. 1d. This result was largely in excess of the estimate, mainly on account of the new system invented by Mr. Alfred Colson, the Leicester gas engineer, for preventing the accumulation of naphthalene in the service pipes. This has done away with the services of over 100 workmen and has effected a saving of over £10,000 during the year. Before this special treatment of the gas was adopted there were over 18,000 cases in eight months of the stoppage of the supply of gas through solid naphthalene crystals being formed in the service pipes. This necessitated the pipes being taken out of the ground to be cleaned, and was a very costly process. The difficulty has been overcome by causing the gas to pass in a fine spray through a specially distilled oil which washes the naphthalene out of the gas. In view of the resignations that have been lately taking place in municipal circles, we advise the Leicester Corporation to keep an eye on Mr. Colson. He is just the kind of man the South Metropolitan Gas Company, for instance, would like to get hold of, and he is just the kind of man, too, corporations need to keep in their service.

Housing in Rural Districts.

THE object of the Housing of the Working Classes Acts Amendment Bill, now before Parliament, is to facilitate housing of the working classes in rural districts. Part I. of the Bill is substituted for Part III. of the Housing of the Working Classes Act, 1890. The principal additions made by this substitution are as follows :—The rural district council is enabled (like other district councils) to adopt this part of the Act without the leave of the County Council. A power of initiative is given to four householders and to the medical officer of health (Clause 4). A simpler method of purchase of land is given, being that at present enjoyed by parish councils for various purposes under the Local Government Act, 1894. Also a power of compulsory hiring of land is given, being adapted from the same statute. The arbitrator is thus precluded from giving any additional compensation on account of compulsory purchase or hire. Powers of delegation to parochial committees and parish councils as to building, furnishing, and management are given. Provision is made for easier repayment of loans. The Public Works Loan Commissioners are enabled to lend for 60 instead of 40 years, and up to two-thirds value. Railway companies, &c., are authorised to hire land for housing their own working class employees. Section 63 of the Act of 1890, which compelled the district council to eject any tenant or occupier who received parochial relief, is not re-enacted. Part II. gives to the parish council, in default of action by the rural district council, the option of appeal, either to the county council or the Local Government Board. Part III. facilitates the amendment of by-laws which have been found so stringent as to unduly restrict the building of cottages; and also enables railway and tramway companies to hold land and build houses for the working classes, not merely for their own employees. It gives special powers to corporations, including universities and colleges, clergy, &c., and trustees of charity lands.

Official Advertisements.

COUNTY BOROUGH OF BRIGHTON.

TO CONTRACTORS AND OTHERS.

NOTICE is Hereby Given that the Council of the said County Borough will receive TENDERS from such persons as may be willing to enter into a contract for the SUPPLY of the necessary MATERIALS and laying of tar macadam on a portion of the Madeira Road, Brighton, comprising about 21,000 superficial yards.

The specification and form of tender may be obtained on application at the Office of the Borough Engineer and Surveyor, Mr. Francis J. C. May, Memb.Inst.C.E., F.S.I., at the Town Hall, Brighton.

Sealed tenders addressed to me, and endorsed, "Tender for Laying Tar Macadam," must be left at my office at the Town Hall before 10 o'clock in the forenoon on Monday, the 3rd day of April, 1905.

The Council do not bind themselves to accept the lowest, or any tender.

HUGO TALBOT,
Town Clerk.

Town Hall, Brighton,
22nd March, 1905.

THE ROYAL BOROUGH OF KENSINGTON.

BOROUGH TREASURER'S DEPARTMENT.

APPOINTMENT OF CLERKS IN RATING SECTION.

THE Council of the above Borough require the services of TWO additional CLERKS in the Rating Section of the Borough Treasurer's Department, at the commencing salary of the fourth class, viz.: £70 per annum, rising to £100 per annum by conditional annual increments of £7 10s. 0d.

Candidates must be between the ages of 19 and 24, must write a good and clear hand, possess an aptitude for figures, and a knowledge of book-keeping and accounts. Preference will be given to those who have had experience in the Finance or Rating Departments of a Municipal Authority.

Applications for the appointment must be made in the candidate's own handwriting, on printed forms to be obtained of the Borough Treasurer, at the undermentioned address, and must be delivered at the Treasurer's Office, accompanied by copies of not more than three testimonials of recent date, not later than 4 o'clock in the afternoon of Wednesday, the 5th April, 1905.

Personal canvassing of any Member of the Council will be a disqualification.

WM. CHAMBERS LEETE,
Town Clerk.

Town Hall,
Kensington, W.,
22nd March, 1905.

POOR LAW OUTLOOK.

Another Bill Introduced into the House of Commons for the Provision of Old-Age Pensions: New Points and Weak Places. The Appointment of an Inter-Departmental Committee on the Question of Underfed School-Children. New Legislation for the Detention by Guardians of Unmarried Mothers. Strange Attitude of the Chief Constable of Staffordshire, and His Views on the Duties of Relieving Officers.

Old-Age Pensions.

THERE are one or two striking points in the Old Age Pensions Bill introduced into the House of Commons by Mr. Goulding, M.P. for the Devizes Division of Wilts. It is proposed that a Pension Committee shall be appointed in every Poor Law Union, one half of its members nominated by the Treasury, and the other half appointed by the Board of Guardians, sex being no disqualification. This committee shall make a list of aged pensioners, each entitled to from 5s. to 7s. a week, and if the pensioner pleases he may live in the workhouse or in a special cottage home, claiming special consideration and treatment. He must be sixty-five years of age, a British subject, free from criminal record, untainted with previous pauperism, and have an income less than 10s. per week or less than 15s. in the case of a married couple. The guardians are to find the money, with the assistance of an annual grant of £7 per annum per pensioner from the Treasury. It is not the amount proposed to be granted, nor the conditions on which the money is received by the pensioner, that are particularly noteworthy. It is that the idea of the special cottage home is associated with the pension.

❦ ❦ ❦

Workhouse or Cottage Home.

IT would seem that the old-age pensioner is given the option of living in the workhouse or a special cottage home. Very few except those already in the workhouse will elect to remain there, and too few will choose the much more rational cottage home. In our opinion, cottage homes in pleasant districts should be erected, and the condition of receiving a pension be that the applicant should agree to live in these cottages away from the influence of so-called friends, who too often would-be spongers on the old people's resources. It was estimated last year that something like 60 per cent. of the old people in our workhouses are physically or morally incapable of taking care of themselves. It would be a dire mistake to leave them either to their own resources or to the tender mercies of either the ignorant or the vicious.

❦ ❦ ❦

Select Committee's Recommendation.

IT should not be forgotten that the Select Committee which some twenty months ago presented its report on the Aged Pensioners' Bill expressed its opinion that the case of the aged deserving poor who, from infirmity or lack of friends or homes, have to remain in the workhouse should be provided for by the extension of the system of cottage homes. But this, as we have already indicated, does not go nearly far enough.

❦ ❦ ❦

Pensions and the Franchise.

THESE pension committees suggested by Mr. Goulding are a modification, apparently, of the "Speeial Commissioners" proposed by the Select Committee. The latter body suggested that the qualifications of any person to reeeive a pension should be decided by Special Commissioners appointed for suitable areas, and not by any local authority, as

> it was desirable to leave to an elected body the duty of deciding upon the merits of certain of its constituents, as the temptation to relieve rates by the grant of pensions instead of by Poor Law relief might lead to grave abuses.

We are afraid it will be argued that one part at least of Mr. Goulding's Bill will be likely to lead to grave abuses, for he proposes to grant pensions which shall not involve any electoral disability or convey the reproach of pauperism. The question of old-age pensions has been found over and over again by the most able minds to bristle with the greatest difficulties. This is one of them. Will the Poor Law guardian whom it is proposed to place on the pension committees be public-minded enough to resist the temptation of "plying for votes" from amongst those voters who are so keenly interested in his decisions?

❦ ❦ ❦

Man Dying by the Roadside.

COMMON feelings of humanity, it would be thought, would teach that if a man were found dying by the wayside it would be the duty either of the police or relieving-officer—whichever happened first to be on the spot—to render assistance. But this does not seem to be quite the view held by eertain officials at Stafford. Some time ago, the Chief-Constable of Staffordshire (Captain the Hon. S. A. Anson) complained of the aetion of the relieving-officer of the Stafford Union, in refusing to render assistance in the case of a man who was found on the roadside in a helpless condition when his attention was called to the case by the police. The question was subsequently referred to the Local Government Board. At a meeting of the Stafford Board of Guardians on Saturday, some correspondence between the Chief-Constable and the Local Government Board was read. In one of these letters, the Chief-Constable calls for the censure of the relieving-officer, and adds:—

> Nor has it been explicitly made his (the relieving officer's) duty to carry out his duties in respect of such cases as I brought to the notice of the Board. I have now instructed my men that if such a case should again occur they are on no account to interfere in any way, but to leave the relieving officer to carry out his own duties.

This, in our opinion, is a most high-handed position to take up.

❦ ❦ ❦

Need for Decisive Action.

THE number of relieving-officers in a town must of necessity be very limited, and much of their time is spent indoors. If a sick or dying man were to be allowed to lie in the road until a relieving-offieer either discovered him or was taken to him, he might have to lie a long time. This is almost worse than a case we heard of a couple of years ago, in which a workhouse master refused to receive a dying and destitute person without an order from the relieving-officer. We suspect that this hard-hearted procedure is far from uncommon. The Local Government Board and the Board of Guardians have taken up a strong stand, we are happy to say, against this attitude of the Chief-Constable of Staffordshire, and we trust that through the Home Office pressure may be brought to bear on him to alter his opinion.

❦ ❦ ❦

Serious Allegations at Islington.

A COMMITTEE of the whole of the Guardians of the Islington Board has investigated some very serious charges as to the treatment of an old man, aged seventy-two, in the Highgate Hill Infirmary. It was alleged that the man, whose name was James Morrell, and who subsequently died, was taken in an ambulance to the Infirmary; but, instead of going direct, he was taken a roundabout way to take up another patient. He was very exhausted when he reached there, being only covered with a blanket. He was told he would have to take a bath. The bath having been got ready, the man asked permission to go to the lavatory. Being so weak, he was some time away, and in the meantime the water in the bath became stone cold. He tried to get into the bath. The two attendants, it was said, instead of helping him, "stood grinning at him." Eventually, he was helped out of the bath, and "shivered dreadfully" for some time after, and gradually got weaker. It was further alleged that difficulties were thrown in the way of the deceased's sons seeing him, and that one of the brothers consequently did not see his father the day he died. Fortunately, however, the Committee has been able to come to the conclusion that the man's death was from natural causes, and "in no way accelerated by the treatment he received in the Infirmary." The Committee, however, recommended that it be referred to the Highgate Hill Infirmary Visiting Committee, to consider the arraugements for medieal attendance at the reeeiving wards and the bathing arrangements there.

❦ ❦ ❦

Underfed School Children.

THIS week it is announced that the President of the Board of Education has appointed, with the concurrence of the President of the Local Government Board, an Inter-Departmental Committee:—(1) To ascertain and report on what is now being done, and with what result, in respect of medical inspection of children in public elementary schools; (2) and, further, to inquire into the methods employed, the sums expended, and the relief given by various voluntary agencies for the provision of meals for children at public elementary sehools, and to report whether relief of this character could be better organised, without any charge upon public funds, both generally and with special regard to children who, though not defective, are, from mal-nutrition, below the normal standard. Sir John Gorst holds that if parents fail to see that their children are provided with adequate nourishment, it is the duty of school authorities to apply to the guardians, in their stead, for the necessary relief. There must, however, be no legislation in panic. Is the nation prepared to feed not only starving children, but the children of parents who are well above the poverty line? In practice, we believe it will be impossible to provide for the one and exclude the other. What is wanted is some way out of this difficulty.

❦ ❦ ❦

Detention of Unmarried Mothers.

FAR-REACHING is the decision of the Battersea and Wandsworth Board of Guardians to petition the Government to introduce a Bill empowering Guardians to detain in the workhouse, for a period not exceeding twelve months, any single woman certified as feeble-minded, who may have been confined of an illegitimate child, and also those women who habitually enter the workhouse for the purpose of being confined. The real point of the decision is in these last words. We quite agree, and have often urged that feeble-minded women should be protected from themselves and from unscrupulous people; but we imagine many guardians would hesitate before deciding upon the incarceration of a elass of women who are not a whit worse than others who escape with immunity. The result would be that this class of woman would keep herself outside the maternity wards at a time when she was in need of skilled assistance. Some very forceful evidence has been put during the last few months before the Royal Commission on the Care and Control of the Feeble-Minded. This week, Miss B. Walton Evans, Inspector of Boarded-out Children for the Northern Counties, and formerly a guardian of the St. Asaph Union, made it very elear that she would have the feeble-minded kept under supervision from childhood, in the same manner as lunatics, in order to prevent marriage.

THE PAUPER CHILD.

Searchlight on the Existing Method of Rearing State Children. Evils of Workhouse Influence. Reasons Why Barrack Schools and Village Communities are Not Desirable. Every System Good in So Far as it Permits Each Being Considered as an Individual Reared in a Family or a Home which Resembles the Normal Family.

[By Mrs. BARNETT, Hon. Secretary of the State Children's Association.]

[Concluded.]

THE Emigration to Canada of suitable children should be encouraged.

1. Because emigration takes the children away from the influence of undesirable relatives or friends, removes them from pauper surroundings, and gives them an entirely fresh start in life.
2. Because opportunities of success and prosperity, such as would rarely or never fall to their share at home, await them in the Dominion, where they may become landowners, and fill positions of responsibility and influence.
3. Because the Canadians are glad to have these children, who are taken into their homes and frequently made members of the family. A recent return shows that for every child emigrated to Canada by the various accredited agencies an average of thirteen applications from Canadian householders was received.
4. Because besides being an advantage to the children, it is also a gain to the ratepayers; emigration expenses for the permanent disposal of a child never exceed one payment of £12 to £13 (exclusive of the charges for inspection made by the Local Government Board, which average £1 per child for each year up to the age of fifteen), as against £28 to £30, which is the annual cost of a child in a barrack school, where it often remains many years.

Emigration As Now Carried Out.

During 1903, owing in some measure to the persistent efforts of our State Children's Committee, 398 Poor Law children were emigrated to Canada by boards of guardians through accredited agencies, as against only 141 in the previous year. This increase of 257 is very welcome, but, as in the case of boarding-out, emigration to Canada could be largely increased with great advantage to both children and ratepayers. In order to aid in this desirable method of dealing with children, our Association has lately issued to all Boards a paper setting forth the procedure to be followed when emigrating suitable children.

Two schemes for the emigration of Poor Law children have lately been made public, and on these the newspapers have been busy. The first is one put forward by Mrs. Close, a lady recently interested in the subject, who proposes that six groups of six farms in each group should be purchased or hired in New Brunswick, and farm buildings erected thereon by English guardians; that on each farm twenty Poor Law children should be placed in the care of two ladies, a cook and a manservant, the children to be from two to three years of age and upwards. Other details of the scheme are mentioned, but those given above afford sufficient ground for the disapproval of the thoughtful. Under the present system of emigrating Poor Law children through accredited agencies, those sent to Canada lose all connection with the Poor Law; they are received into the homesteads of the farmers, and become incorporated with their home life almost as soon as they arrive, at no cost to English rates after the one payment of about £20 (never more), which covers their outfit, voyage, receiving and placing in Canada and their periodical inspection by the philanthropic agency taking them out, as well as by the Dominion Government. It seems hardly wise to exchange such an arrangement, which has been perfected by long experience, and is eminently successful in its results, for another system that would plant wings of the English workhouse on Canadian soil and envelop our young folk with that Poor Law atmosphere, of which all who care for them have so earnestly striven to rid them. Is the plan cheaper? No, for under it, even if land be given and simple buildings erected, the children from two or three years old until the age of fourteen would remain a charge upon *our* rates, costing, it is estimated, something like £20 per year.

The S.C.A. and Mrs. Close's Scheme.

The limits of this paper will not permit of me giving more detail, but careful study of this scheme has made my committee feel it to be neither wise nor practicable, though we welcome Mrs. Close's aid in interesting the Press in the subject of emigration for Poor Law children.

The second scheme is one brought forward by Mr. Kinloch Cooke, who desires to establish large training schools for Poor Law children in South Africa and elsewhere, "so that they may grow up good colonists." But this plan, inasmuch as it also would rear children in Institutions, and not in families, is to be deprecated. Moreover, it has the additional grave drawback that South Africa, with its racial problems, its serious labour difficulties, its unsettled political conditions, will be for many years an unsuitable place for children of the class it is proposed to send, while to gather them there in large groups, is but to repeat the errors which are only now beginning to be repented of and corrected in the old country.

Other Methods.

On small certified homes, training ships, and trade-teaching schools, space will not permit me to dwell, but there are two matters on which legislation is contemplated, and on them I must touch.

pecial Courts for Children.

The first is the need for special Courts for children. At the present time children on being arrested are taken to the police station, thence often to the police cells, and the next day to the Police Courts, there to have their cases heard amid sad, degraded, and often degrading associations. The desire of my Committee is that all children's cases should be heard in a room of the Court-house, or other place separate and apart from that where adult cases are tried. The advantage would be not only the direct one of saving the child from being placed in the ordinary dock among adult criminals, but two indirect ones:—

1. The 139 industrial schools would be better classified, the vacancies known, and each child sent to the place best suited to its age, character, fault, health, and disposition.
2. The focusing of attention on children's cases would, it is believed, result in the establishment of probation officers, as is done in America. Miss Adler, the hon. secretary of the Committee on Wage-earning Children, has issued an excellent memorandum on this subject, from which I will quote: "Under the probation system youthful delinquents are allowed by the justices of the children's courts to return to their parents on probation, while probation officers, usually women, are appointed by the Court to watch over the children, to visit them at their homes, and to report on their progress and conduct from time to time. If the delinquents are beyond school age employment is found for them, and means are taken to interest employers in their welfare. In all but a very small proportion of cases this action obviates the need for committal to industrial and reformatory schools. Very few of the boys and girls placed under the care of probation officers return to the jurisdiction of the Court charged with a second offence."

The subject is worthy of a paper itself, but may I read you a few words of Mrs. Kent Scott on the work of the probation officers attached to the special Children's Court in Philadelphia.

Untold Harm.

"The probation work in Philadelphia is on a standard set by leaders in the National Congress of Mothers, whose speciality has been the study of childhood.

"An officer must not have too many cases under her care. Our officers are women. Dealing as they do with the child and the mother, they come, we hold, into closer relations than can a man, for child-care is ever woman's work, the mother-work which the world needs.

"An experience of thousands of children has proved conclusively that there is no criminal class of children. A child's environment, lack of home care, and neglect may lead him into crime, but in each we find the germ of good, and to quicken and develop it is our work. Punishment does not accomplish this. Education helps, love and patient stimulation of the better instincts can alone develop that germ. We do not consider the crime. We consider the child, and we have saved those whom even the reform schools feared to take, considering them prodigies of crime. We also encourage parental responsibility, and provide help and instruction for ignorant, careless parents."

Official Report from Court Records.
June 14, 1901, to November 1, 1902.

Delinquents	1,112
Returned home on probation	1,008
Back twice	24
Back three times	3
Sent to Homes of Refuge...	104

To obtain special Courts, or places where children's cases can be heard apart, Sir Howard Vincent has brought in a Bill which is backed by Mr. Samuel Smith and Sir John Gorst.

The Child Vagrant.

The second matter needing legislation is children vagrants.

Do we not all know such children? Ragged, dirty, lawless, unhomed, they wander from the casual ward to the charitable shelters, from the shelters to the hedgerows, from the fields to the doss-houses, and so on again. Unloved, unloving, they grow up untaught, and for these the helpful consideration of all who care for children is needed. Ishmaelites in feeling, their lives are a weariness to themselves, a danger to the community, and one that has so increased as to make legislation necessary. In 1899 the State Children's Association brought in, and succeeded in getting passed, a Bill, to give the guardians the power of adopting neglected children. As a result of that measure and an Act passed ten years before, 8,577 children had (at the date of the last return) been adopted by various Boards. But this Act only touches the children when they become paupers, and cannot touch the wandering little ones. For several sessions the S.C.A. brought in a Vagrant Children's Bill, but it was unfortunate in the ballot, and still the need does not diminish. Still the children wander, and still they sin and suffer. So child-lovers must try again, but meantime we must pause until the Commission now sitting on Vagrancy, has issued its report.

Now, I feel I owe you an apology for the length and the weightiness of my paper, but the Poor Law child is a great subject, and must be deeply considered.

When I was young, women had no political nor municipal power. We have not got so much yet as some of us would wish, but let each one of us see to it that what we have is used for the children's needs, and that while we strive and work for justice to ourselves, we use the great force we already possess for the welfare of the helpless, the voiceless, and the dispossessed, among whom stands ever in our midst the pathetic figure of the little pauper child.

COTTAGE HOMES AND EDUCATION.

In the Newcastle-upon-Tyne Union an Interesting Question has Arisen as to who is Responsible for the Education of Certain of the Children from the Guardians' Cottage Homes. Education of the Older Children Claimed from the County Council. The Latter Body Charges the Guardians with Caring Better for the Children than Could the Agricultural Labouring Man.

THE attention of poor law authorities has been directed recently to the Cottage Homes of the Newcastle-upon-Tyne Union, anent the education of the children of which a vigorous fight nas been waged between the Northumberland County Council and the Board of Guardians.

A number of fragmentary statements has appeared in the public Press, but through the courtesy of the chairman of the Cottage Homes (Mr. Mayne), and the officers of the Board (of whom Mr. James Atkinson is head), we are enabled to give official information which throws very strong light on this matter. It may be mentioned that the Cottage Homes have been in use some four or five years, the guardians having purchased seventy acres of land at £70 per acre, in the Civil Parish of Ponteland, for the purpose in 1899.

The question of the education of the children early occupied the attention of the guardians, as it was their desire that as far as possible the children should be educated at ordinary elementary schools, so as to help to remove the feeling which has in the past grown with the workhouse child—that it was separate and beneath all other classes of children. To this end the guardians approached the governors of the Coates' Endowed School, in the village of Ponteland, and found that in a school with accommodation for 200 children only a little over 100 children were being educated.

Negotiations ended in an agreement by which the governors undertook to find places for from 60 to 70 of the Cottage Homes children, the guardians in turn to pay the school fees, and a sum of £70 annually. By the time the terms of this agreement had been arranged, the new Education Act was introduced into Parliament, and it was seen that this would probably alter the conditions, as education would become a county charge, towards which the guardians would have to contribute. The guardians consequently held over the completion of the agreement until it was known whether the Coates Endowed School was to become a non-provided school, and eventually finding that this was so, the guardians felt it unnecessary to complete the agreement, and claimed from the County Council the education of their older children, provision having been made by the building of a schoolroom by the guardians for the infant children and Standard 1 at the Cottage Homes.

Now the non-provided school, or the Coates Endowed School, is full, and there are at the Cottage Homes some 20 children in Standard 2, and a large proportion of these may be expected to pass into Standard 3.

In reply to the guardians' request that the Education Committee should make provision for the education of these children who are unable to get into the Public School, the chairman of the Education Committee had an interview with the chairman of the Cottage Homes Committee to see whether some arrangement might be come to. As a railway has just been completed to the village from Newcastle, the possibilities of its development, and consequently its additional facilities for educational purposes, are difficult to estimate, and the guardians, realising this difficulty, propose that, if possible, a room or building near to the present public school should be rented and used as an infants' school, to relieve the public school sufficiently to allow all over Standard 2, now at the Cottage Homes, to be accommodated. If such a room could have been hired, the guardians were willing to pay the rent (without prejudice to their claim) for two or three years. The Education Committee now states that there is no such room, and asks the guardians to pay the full cost of any extension necessary.

As the guardians are already educating over 100 of their children, and are requesting the education of about 100 in the public school, they feel they are not asking for an abnormal number proportionate to their assessment, the homes having been assessed on £1,200. The general rates at Ponteland prior to the Cottage Homes being opened, amounted to 1s. 9d. in the £. They now amount to 1s. 10d., although 6½d. in the £ has been added for educational purposes. The total rateable value of the village is, agricultural land, £1,886 10s.; and buildings, £2,901 5s.; so that about 7s. is contributed by the guardians to every £1 contributed by the parish.

The guardians have all along felt it would be unfair to place upon the public of Ponteland any loss whatever as a result of the Homes being opened in the parish, but from these facts it seems that, financially, their opening has been a distinct gain to the parish.

At a recent meeting of the Northumberland County Council Education Committee, the vice-chairman of the County Council (Alderman H. N. Middleton), after discussing the education question, went out of his way, the Newcastle Guardians think, to charge them with clothing, feeding, and caring for the children better than the agricultural labouring man could do for his children, thus creating a spirit of discontent among the rural population. In refutation of this charge, it is pointed out, that, according to the return recently presented to the Board of Trade on the earnings of agricultural labourers, &c., a man, wife and four children in the Northern Counties spends on food 14s. 10½d. per week. (For the purpose of comparison a man's food is counted as equal to two children; therefore, this would be equal to seven children.) The cost of food at the Cottage Homes is 2s. 1½d. per week, 14s. 10½d. for seven children, and exactly the amount spent by a labouring man. The average amount spent on food for families of this number throughout England is given as 3s. per week. The cost of one child per week for clothing at the Cottage Homes is 5d., rather under the average amount spent by the agricultural labouring classes.

Altogether the guardians feel that they are perfectly justified in the attitude they have adopted.

NEWCASTLE COTTAGE HOMES.

TELEPHONES PURCHASE.

(*To the Editor.*)

SIR,—On February 24, you were good enough to grant me space for an article on this important subject, in which I demonstrated that (1) the proposed agreement meant the continuance of high rates till 1911 at least, without any indication as to what would happen thereafter, and (2) that it would make ducks and drakes of the existing municipal exchanges.

I now propose to show that it is calculated to do the same with the Post Office itself. The maximum and minimum schedules of rates between which the company may oscillate at will constitute the ingenious device for compassing this end. The maximum schedule enables the company to maintain its high rates in non-competing centres; the minimum enables it to undercut the corporations and victimise the Post Office. One would imagine that the object of a minimum schedule would be to prevent the Company undertaking unremunerative business to the injury of its successors, if not of its competitors. If this is not its object, what possible excuse can be advanced for such a schedule?

Well, under the proposed minimum schedule the Company is empowered to make contracts for two-party lines, and party lines serving three, four, or more subscribers, for a first and last charge of ½d. for each outward call (inward calls being free), provided the receipts per subscriber do not fall below 20s. per annum. Thus, a two-party line may produce £2 per annum; a three-party, £3 per annum; and so on. No limit is placed on the length of such a line, which may extend to five or ten miles. Sir William Preece, in giving evidence for the Post Office before the Select Committee of 1898, said (Question 5,376) that on a five-party line it would be necessary to receive £4 per annum from each subscriber, or £20 in all, in order to make a profit of 12s. per subscriber per annum. That is to say, the working expenses would amount to £3 8s. per subscriber per annum. He says that a yearly rental of £2, with 1d. calls amounting to another £2, are required to make such a line pay.

Under the minimum schedule in the agreement, the total receipts from such a line may be only £5, equivalent to a loss of £15 on Sir William Preece's figures. For a two-party line costing at least £40 to construct, according to Post Office figures, and costing at least £5 5s. to work and maintain, the proposed income is £2! The Post Office charge for a two-party line is £3 per annum for each party, and a penny per call (with a minimum of 30s. per annum), which gives it a certain revenue of 10s. in excess of Sir William Preece's estimate.

The cheapest telephone system working is probably that of the States of Guernsey. The accounts of the Guernsey undertaking for 1904 show that the average working cost per telephone in the island was £3 1s. 11d. Supposing Guernsey let its telephones at 20s. per annum each, the handsome profit it makes would become a deplorable loss. So the Company is to be free to build up a business of an absolutely ruinous character, and in 1911 to say to the Post Office, "These lines have cost us £40 each; please pay us back that amount." And the Post Office will be obliged to do so, less depreciation.

Its first act then no doubt, will be to give notice to such unremunerative subscribers to terminate contracts; but the taxpayer will have paid for plant which will lie derelict and useless. The prime intention of the minimum schedule is, no doubt, to enable the Company to undercut the corporations, as I have already pointed out; but it also permits it to torpedo the Post Office itself. In 1869, when the telegraphs were purchased, the amount to be given depended on the mileage of wire existing at the date of transfer. There are officials in the Post Office to-day who were then employees of the various telegraph companies, and who still boast of the great deeds they performed in erecting hundreds of miles of useless wire between the date of agreement and the date of transfer for the Post Office to buy at three or four times its value. Similarly, when 1911 looms near, the possibilities afforded by the minimum schedule for erecting plant will be sure to present themselves; cheap telephones will have a tremendous spurt, and there will be a large, if not choice, assortment of 20s. subscribers at £40 or £50 per line for the Post Office to buy!

But this is not all. Under Clause 9 (3) (a) *any* charges which the Company may have in force at the date of the agreement are legalised, in spite of the schedule. In non-competing centres, charges in excess of the maximum schedule exist; in competing centres, charges below even the amazing minimum schedule are rife, all of which may be continued till 1911, and then handed over to the Post Office.

Other objections may and will be taken to this loose and ill-digested agreement; but consideration for your space deters me from touching upon more than one. I do hope that the clause referring to the Company's staff will be reconsidered. Salaries have ruled very low, work has been hard, responsibility has been great. Hundreds have spent their best years—many count a quarter of a century—in the service. It is said—I know not how truthfully—that their own superannuation fund will not be available. But certainly, under Clause 8, the Post Office proposes to cast them adrift, or at least to give compensation, if at all, as a mere favour, and not as an obligation. Surely, this is not just and not what the British public would desire!—Yours, &c.,

A. R. Bennett.

The St. Pancras Ironwork Co. Ltd.

Fire Escape Staircase erected at the Berkeley Hotel, Piccadilly, London, W.

FIRE ESCAPE STAIRCASES

STRAIGHT & CIRCULAR IRON STAIRCASES

LIGHT IRONWORK in all its departments has for many years received the constant consideration and careful study of Experts on our Staff. We are therefore in a position to plan and execute trustworthy work of this description with despatch and accuracy.

Catalogues sent on application.

171 St. Pancras Rd. London N.W.

Telephone—No. 519 King's Cross. *Telegrams—"Equitation," London.*

DIALITE

THE STANDARD CABLE FOR ALL PURPOSES.

THE ST. HELENS CABLE CO., Ltd., WARRINGTON.

ELECTRICITY SUPPLY.

Lessons from Watford and Stockport. Expert and Energetic Supervision of Works one of the First Factors Tending Towards Economy. Deficiency at Watford Anticipated to be only Temporary. Surplus at Stockport. The Benefits of a Large Traction Load.

THE Watford undertaking is one of those single-phase systems of comparatively small size which are correctly designated electric lighting concerns. It has the advantage of a public lighting load which exceeds its private supply by some 50 per cent., and the rate charged is by no means an unremunerative one. With a load factor of 16.14 per cent., its capital charges amount to 1.372d., which is a moderate sum under the circumstances. Its costs are higher than would be the case in a coal district, and it is here that the effect of an increased output will be felt. There is a tendency to blame the system for high costs, and it must be admitted that having to run throughout the twenty-four hours is a disadvantage under which alternating stations labour compared with their continuous current competitors in the race for low costs. Labour charges are necessarily higher, for although it is customary to leave only a driver and a stoker in the works during the night-shift, this cannot tend to economy, inasmuch as it has been abundantly proved by experience that expert and energetic supervision is one of the first factors tending towards economy. Wear and tear is increased by having to run a plant lightly loaded for many hours, during which the load is small and the returns are inadequate, considering the costs of giving supply. But so many works are doing well in face of these and cognate difficulties that we anticipate the record of a deficiency is only temporary, and that ere long Watford will be able to afford all the advantages of a municipal supply without incurring a deficiency.

❦ ❦ ❦

Watford.

THE last published accounts cover the period to March 31, 1904, and show that:—

The revenue derived from sale of current &c., amounted to	£7,544
And the working expenditure to	4,824
Leaving a gross profit of	£2,720
Out of this sum the following requirements should have been met:—	
Interest on mortgage debt... ...	£1,516
Sinking fund and repayments ...	1,378
Total of capital charges ...	£2,894
Less gross profit as above...	2,720
Deficiency for year	£174

The receipts were obtained from the following sources:—

WATFORD.	Units.	Yielding.	Per unit.
Private consumers took ...	203,208	£3,599 =	4·251d.
Public lamps consumed ...	303,021	3,791 =	3·003d.
Interim total	506,229	£7,390 =	3·503d.
Meter rentals...	—	127 =	·060d.
Sales of old material, &c.	—	27 =	·013d.
Revenue in all	506,229	£7,544 =	3·576d.
Units used on works ...	19,688	(The maximum load was 358 k.w., equal to a load factor of 16·14 per cent.)	
Total accounted for ...	525.917		
Utilised on distribution ...	75,335		
Total units generated ..	601,252		

The amount received was taken up and appropriated thus:—

	Amount.	Per unit.
Works cost	...£3,922 =	1·859d.
Rates, taxes, and management	819 =	·389d.
Total cost	...£4,741 =	2·248d.
Public lamp maintenance ...	83 =	·039d.
Gross cost ...	...£4,824 =	2·287d.
Interest charges	... 1,516 =	·719d. } 1·372d.
Sinking fund charges ..	... 1,378 =	·653d. }
Total actual cost of units sold	£7,715 =	3·659d.
Less deficiency	174 =	·083d.
Revenue in all.. ...	£7,544 =	3·576d.

❦ ❦ ❦

Stockport.

THE electricity accounts of the County Borough of Stockport for the year ended March 31, 1904, show a surplus for the twelve months of £1,619, and to this was added a balance of £143 brought forward from the previous year's accounts, making a total of £1,762. The Council wisely decided to place £1,684 to the reserve fund, leaving a sum over of £78, which has been carried forward to the next year's accounts. The general character of the operations for the period mentioned is indicated by the following summary:—

The revenue derived from the sales of electricity, &c., amounted to	£11,589
And the working expenditure to	7,020
Leaving a gross profit of	£4,569
Out of this sum the following requirements were met:—	
Interest on mortgage debt	£1,638
Sinking fund and instalments repaid ...	1,312
Total of capital charges	2,950
Surplus for year	£1,619

❦ ❦ ❦

Large Traction Load.

STOCKPORT has the benefit of a large traction load, which is greatly in excess of the lighting output, and this has not only brought down the costs, but in a very marked degree has reduced the capital charges per unit. The load factor is by no means high, but this is probably due to a coincidence in the peaks of the combined lighting and traction supplies. It will be seen that the private supply is sold at an average of practically 4d., the public lighting at 2d., and the traction units at 1½d. each. The various sources of receipts are detailed thus:—

STOCKPORT.	Units.	Yielding	Per unit.
Private consumers took ...	291,371	£4,745 =	3·908d.
Public lamps consumed ...	68,840	573 =	1·998d.
First interim total ...	360,211	£5,318 =	3·543d.
Traction sales represented	959,592	5,997 =	1·500d.
Second interim total ..	1,319,803	£11,315 =	2·057d.
Meter rentals...	—	15 =	·003d.
Sale of lamps, &c.	—	259 =	·047d.
Revenue in all	1,319,803	£11,589 =	2·107d.
Units used in works ...	31,498	(The maximum load was 1,048 k.w., equivalent to a 14·38 per cent. load factor.)	
Total accounted for ..	1,351,301		
Utilised on distribution ...	12,285		
Total units generated ...	1,363,586		

The receipts were taken up and appropriated as follows:—

	Amount.	Per unit.
Works' costs	...£5,820 =	1·058d.
Rates, taxes, and management.	946 =	·172d.
Total cost	.. £6,766 =	1·230d.
Public lamp maintenance ...	254 =	·047d.
Gross cost	...£7,020 =	1·277d.
Interest charges	... 1,638 =	·298d. } ·536d.
Instalments repaid ...	... 1,312 =	·238d. }
Total actual cost of units sold	... £9,970 =	1·813d.
Add surplus for year ...	... 1,619 =	·294d.
Revenue in all	.. £11,589 =	2·107d.

The public lighting in Stockport consisted of 41 arc and 4 incandescent lamps. As shown above, these consumed 68,840 units, brought in a return of £573, and cost £254 for attendance and repairs.

BATTERSEA BREAKDOWN.

THE FACTS OF THE CASE.

WITH reference to the reports regarding the breakdown in the Battersea electricity department last Saturday, we have received the following statement:—

"Our 750 k.w. generator armature went to 'earth' at 8.50 p.m., causing a total extinction of the supply. Unfortunately, on the Thursday night before a 350 k.w. machine broke down in the same way. It was, therefore, impossible to cope with the demand at that hour in the evening until the area had been split up into districts. By that time, the demand was much lighter, and the whole supply was running again at 10.20 p.m."

"BLACKENING OF CONSUMERS' LAMPS."

By HORACE BOOT, Consulting and Resident Engineer, Tunbridge Wells.

(To the Editor.)

THE trouble referred to by the title has been for a long while past receiving careful attention at the hands of all chief engineers connected with electricity supply works, and only quite recently a misled correspondent of your excellent Journal raised the question in your columns as "something new!" The Tunbridge Wells Council, however, did not for one moment entertain these statements, because they are found to be misleading and incorrect, and the committee thought that harm would only be done by playing into the hands of our rivals by crying the ratepayers' undertaking down in such a public manner, and that if the individual desired to benefit the ratepayers' undertaking, he would have approached the committee or its officials concerned *first*, and taken great care to be perfectly accurate before he made any public statement which would have the effect of dissatisfying consumers. It is such public statements as these which make it so difficult for chief engineers to run a municipal electricity works successfully. Imagine the chairman of a a board of directors getting up at a public meeting and stating that "The supply given by their company is the cause of spoiling consumers lamps," and yet your comments thereon seem to infer that this question was addressed to the chairman of the Electricity Committee for the purpose of stimulating interest in the electricity undertaking—a line of reasoning which, to the writer's experience, is absolutely foreign, and for once he is unable to see eye to eye with you in such an argument.

It has always been his ambition to do the best for:—

(1) The consumers.
(2) The ratepayers' electricity undertaking, irrespective of all public and often unwarrantable criticisms.

To return to the question of blackening of lamps, you seem to think it is the cause for a loss of a certain number of consumers; the writer may at once say this is not so. Some consumers are returning to gas for one reason only, because they think gas is cheaper and greatly improved, and cheapness to them is the *first* consideration, quite irrespective of the colour of the light, the vitiation of the atmosphere, or any of the benefits which electricity has over its rival, as they find their businesses do not warrant them paying more than they can possibly help. It is, therefore, not surprising that electricity supply authorities are losing a certain number of consumers, but the authorities know very well that one of these days an improved lamp will be introduced which will entirely supersede all gas lighting!

For private house lighting, electric light is par excellence, and this is proved by the fact that the general experience has been that shops, where cost is the first consideration, are going back to gas, but electricity for private house illumination is making rapid strides, and ousting gas everywhere.

In Tunbridge Wells during the lighting hours, the voltage is maintained at an even pressure—in fact, the writer is not aware of any other town working on the high-pressure system where *more regular* pressure is maintained—it is usually within 1½ to 2 per cent., although the Board of Trade allows 4 per cent. There is not a point in the large network of distributors and sub-stations in Tunbridge Wells where the pressure is abnormal.

Tunbridge Wells is a very difficult town to supply, owing to its scattered area, there being no less than 184 miles of feeders and distributors already laid; so that this subject is constantly receiving the careful attention of the technical advisers to the Corporation, so much so, that the writer can give you at the present moment the exact pressure at any sub-station (there are

sixty), provided you give him the works pressure.

Your receipt for the loss of pressure certainly deserves congratulation, as it is practical, and has received the attention of the writer in this and other towns for some fifteen years, but, of course, there are many other factors to be taken into consideration, which are only obtained by practical experience.

Perhaps, however, the strongest argument which can be used in proof of the blackening of lamps is the fact that lamps of certain makes blacken, whereas others do not, although they are used the same number of hours, and on the same circuits. It is, perhaps, needless to say, of a committee undertaking its business in so thorough a manner as the Tunbridge Wells Electricity Committee does, that these details have not escaped its observation.

It is somewhat a surprise to the writer to find the only reason given for the blackening of lamps appears to be, in your eyes, caused by "over-volting." To ascertain the true cause of some lamps blackening whilst others do not, although they are burning under identical conditions, requires you to carefully study the question of the manufacture of electric glow lamps, and ascertain the various processes through which they have to pass.

It was well known to central station engineers in 1894 and 1895, when the high-pressure lamps were first introduced, that these lamps gave a great deal of trouble, and were very unsatisfactory, owing to their rapid blackening, the fault *not* being the pressure of supply or the irregularity, but the fact that the lamps were *not* treated by the "Flashing Process" (*i.e.*, the heating to incandescence of carbon filaments under hydro-carbon gas or vapour, called by the French "Carburation"), the same as the low-pressure lamps were. The flashing process, if carried out properly, will make all the difference as to whether the lamp blackens or not. This has been proved over and over again, and is acknowledged by all expert lamp manufacturers, but it is quite usual with the non-technical traveller, whose duty it is to sell lamps (often of foreign make at very low prices), to explain that any faults which a consumer may tell him his lamps possessed are due to the fault of the supply authorities; in fact, one has only to make a complaint to almost any lamp manufacturer to receive this stereotyped answer.

MUNICIPAL PARLIAMENT.

THE COMING ANNUAL MEETING OF THE A.M.C.

TO-MORROW (Saturday) week, the annual meeting of the Association of Municipal Corporations will be held in the Council Chamber of the Guildhall, in the City of London, by the kind permission of the Corporation.

Sir Albert Kaye Rollit, LL.D., M.P., will be proposed for re-election to the office of President of the Association for the ensuing year, and, if elected, will take the chair. Sir James T. Woodhouse, M.P., will be proposed for re-election to the office of Vice-President. The members of the association will dine together in the Whitehall Rooms of the Hotel Metropole, on Friday, the 31st inst. (the day prior to the annual meeting), at 7.30 p.m. Amongst others, the Right Hon. Gerald Balfour, M.P., the Lord Mayor and Sheriffs of London; the Belgian, Chinese, and Siamese Ministers; Baron Suyematsu (Japan), the Solicitor-General, and Professor von Herkomer, R.A., have accepted invitations to the dinner.

The following matters are down for discussion at the annual meeting:—

POLICE PENSIONS.

The Town Clerk of Brighton:—

To call attention to the large and increasing sums payable in police pensions, with a view to the Government being asked to increase the grants from Imperial funds towards the pension funds, and to move a resolution referring the matter to the Council, and with instructions to take such action in the matter as they may deem expedient.

ELEMENTARY EDUCATION.

The Town Clerk of Wolverhampton to move:—

That the proposal of the Board of Education to pay the annual grant in one sum in respect of each school at the end of each school year, in lieu of payment of the same grant by quarterly instalments as hitherto, tends to seriously increase the burdens of local taxation, and that the President of the Board of Education be respectfully requested to receive a deputation in regard to the subject at an early date.

TELEPHONES.

A representative from Newport (Mon.) to move:—

That the attention of the Council be drawn to the proposed purchase of the National Telephone Company's Undertaking by the Government, with a view to taking all necessary steps to safeguard the interests of municipalities in the matter.

TRUST INVESTMENT.

A representative from Halifax to move:—

That in view of the extension of the privileges of trust investment to £192,000,000 of Colonial securities, the Government be again urged to introduce into Parliament in the present Session a Bill providing for the assimilation of existing powers of investment, and for the extension of trustees' powers to eligible British securities, including mortgages and debentures of municipal corporations not at present possessing such privileges.

In Use in over 100 CENTRAL and POWER STATIONS,
AND MANY THOUSAND PRIVATE INSTALLATIONS.

E. P. S. STORAGE BATTERIES

ARE MANUFACTURED ONLY BY THE
ELECTRICAL POWER STORAGE CO.,
4, GREAT WINCHESTER ST., LONDON, E.C.
Telegrams—"STORAGE," LONDON. Telephone—No. 1253, London Wall.

A. & F. MANUELLE
GRANITE SETTS.
LARGE STOCKS OF ALL SIZES FOR IMMEDIATE DELIVERY.
Also Large Stocks of ***CURBS, CHANNELS, MACADAM, SIFTINGS, BEDSTONES, TEMPLATES,*** *&c.*
Building Work of every description from Architects' and Engineers' Designs.
Chief Office: 57, GRACECHURCH ST., LONDON, E.C.
QUARRIES:—GUERNSEY, ABERDEEN, LEICESTER, IRELAND, NORWAY, & SWEDEN.
Telegraphic Address—"FELDSPAR, LONDON." Telephone Nos. 274, 296 AVENUE.

TRAMWAY TOPICS.

Extension of Glasgow Corporation Tramways, and the Proposed Extension by the Dartford Urban District Council of the System from London to Bexley Heath. Passengers Travel on Footboards at Their Own Risk: Judgment for the Newcastle Corporation. Horticulture Amongst Tramway Men. Pleasing Movement at Hull.

THE Glasgow Corporation tramway cars began running to Paisley on Monday last. The cars run from Barrachnie and Tollcross terminus right through to Paisley Cross, the full fares being 5½d. from the former and 5d. from the latter. The route is divided into stages similar to those of the other parts of the tramway system. Cars run at pretty long intervals up till about half-past eight o'clock each morning, but throughout the day there is a six-minute service. On Saturdays there is to be a four-minute service after one o'clock, and in the summer this service may be doubled.

❦ ❦ ❦

Cheltenham and District Light Railway.

THE work of extending this light railway to the two principal suburbs of Cheltenham, viz., Leckhampton and Charlton Kings, has now been completed. The system has already for nearly four years extended from beyond the Midland Station on the extreme south-west of the town to the top of Cleeve Hill, a distance of about six miles, and by the extensions now made some four or five miles of running have been added.

❦ ❦ ❦

Railway and Tramway Competition.

ON Monday the conference of municipal tramway authorities met in London, Councillor Boyle, of Manchester, presiding. It was reported that the Midland Railway Company had agreed with the Liverpool and Bradford Corporations to insert clauses limiting the running of motor omnibuses to routes beginning or ending at one of the company's railway stations. It was agreed that Mr. J. H. Whitley, M.P., should move an instruction to the Committee dealing with the Bill to extend the clause to the railway's whole system, and also to secure the insertion of a similar clause in the North-Eastern Railway Bill and the Great Western Railway Bill.

❦ ❦ ❦

London to Dartford.

AS we briefly intimated last week, the Dartford Urban District Council purposes to extend the electric tramway from London to Bexley Heath by putting down a connecting line from that place to the other side of Dartford, namely, to Horn's Cross (between Stone and Greenhithe)—8¼ miles single track. The Council has, however, resolved to lease the line to Messrs. J. G. White and Co. for five years, and, at the Council's option, for two further periods of five years—15 years in all. The contract amounts, we understand, to between £75,000 and £80,000, the contractors paying interest and sinking fund and 20 per cent. on any profits that may arise. It is felt that the rent and interest on profits will indemnify the Council against any loss, whilst, should the new line prove a decided success, the Council will probably take it over at the expiration of the first five years, the contractors relinquishing without being entitled to compensation.

❦ ❦ ❦

Council's Current.

ONE of the best things about the scheme would appear to be that the current will be supplied from the Council's electricity works, which at present (despite the fact that the facilities offered for electric lighting are fairly well appreciated by the townspeople) are being run at a loss. It is confidently hoped that the works of the new tramway will turn this loss into a profit. It is possible that the new line may be so worked as to expedite the market-garden night traffic (which is considerable, but slow) between Dartford and London. A service of parcels trams, after the style of those at Manchester, might be acceptable for the carriage of fruit, eggs, and such articles. And even if the County Council declined to afford facilities for continuing the route of such parcels to Covent Garden, the use of the Dartford and Bexley Heath line would at least carry them forward part of the way, and thus save some time. The fact, moreover, that the termination of the new line would be close to the future great ocean wharf at Greenhithe is full of satisfactory possibilities, whilst it is also worth noting that some two miles from Greenhithe the Gravesend and Northfleet tramways commence and run from Swanscombe through Northfleet to beyond Gravesend.

❦ ❦ ❦

Blackpool Finance.

THE receipts of the Blackpool Corporation tramcars from April 1, 1904, to March 16, 1905, as compared with the same period during 1903-4, show an increase of £6,228.

❦ ❦ ❦

Passengers and Footboard Risks.

HIS Honour Judge Greenwell, at the Newcastle County Court last week, gave judgment for the Corporation of the city in a case in which the latter was sued by a passenger for injuries received through being jerked off a tramcar. At the time plaintiff was standing on the footboard after it had passed the stopping-place, where, he alleged, he had told the conductor he wanted to alight. The defence was that he gave no order, and tried to alight as the car was moving. The Judge said that while he accepted plaintiff's statement, he did not see how that gave him a claim. If he had given an order with which the conductor did not comply, that did not justify him in remaining on the footboard after the car increased its speed on passing the stopping-place. The footboard was a place where a passenger had no right to travel, having due regard to his own safety and the liability of the Corporation. It was common for people to travel on it, but he thought they must occupy the same position as people who tried to get off while the car was moving—they were there at their own risk—and he gave judgment for the defendants.

❦ ❦ ❦

Portsmouth Tramways Handbook.

PORTSMOUTH is one of the few corporations to be congratulated on the publication of an official handbook of its electric tramway routes. Though it would be exaggeration to say that a book of this kind is as indispensable to tramcar passengers as a timetable is to railway passengers, it is not difficult to realise the usefulness of giving ready access in this form to information about routes, stages, fares, the times at which early morning cars and Sunday cars start, &c. But this handbook, the price of which is one penny, also gives the names of places of interest in and around Portsmouth; a section, entitled "Attractive Tram Rides;" block diagrams of routes; hints to passengers; tramway bye-laws, &c. One of the hints to passengers is the following, which might be writ large on most of the municipal tramcars:—"The employees of the department are trained to extend the utmost civility and courtesy to passengers, but it should be borne in mind that they have arduous duties to perform, in which they can be largely assisted by tolerant consideration on the part of passengers." Altogether the handbook is a credit to the Tramway Committee, of which the chairman is Councillor H. Kimber, J.P., and to the general manager (Mr. W. R. Spaven).

❦ ❦ ❦

Tramwaymen and Flowers.

ONE of the shed foremen in the employ of the Hull Corporation Tramways Committee (Mr. E. Firth) struck upon the novel and pleasing idea of furthering the culture of flowers amongst his fellow-tramwaymen by organising a hyacinth show. This, which is said to be the first exhibition of the kind—being confined to tramwaymen—was held the other evening in one of the Corporation car sheds. Prizes and awards were given. All the plants had been grown in pots, and under conditions usual to those found in the dwellings of working men. The show was an immense success, and will undoubtedly be repeated next year. On the present occasion everybody connected with the tramway service took a sympathetic interest in the show,

DICK, KERR & Co., LIMITED.
ABCHURCH YARD, CANNON STREET, LONDON, E.C.

Contractors for Municipal Lighting and Tramway Schemes.

Head Office:—ABCHURCH YARD, CANNON STREET, LONDON, E.C.
Branch Offices:—Manchester—Northern Assurance Buildings, Albert Square.
Sheffield District—Tasker's Engineering Co., Blonk Street. Glasgow—163, Hope Street.

from the manager (Mr. W. J. McCombe) to the last appointed points lad. The manager gave a special prize of 5s. for the best individual bloom in each class.

New Top-Covers at Newcastle.

ON Tuesday the Newcastle Corporation introduced on its system two new top-covered tramcars. The top structure is described as "light and artistic" and "neat and compact." The new type of car is really the result of a visit paid by the Mayor and a small committee to Leeds and Glasgow, where covered cars have long been in use. In many respects the design closely follows that of the covered cars of those cities, but it is claimed that it presents many improvements, and comprises the best features of this class of car. Passengers ascending the stairs to the outside upper platforms, which lead to the covered-in portion, are safely protected by rails from any possibility of falling over. Once on the top they may smoke either outside or under cover, but several notices warn them that they are strictly forbidden to expectorate. Nor must they stand up. Upstairs passengers must always remain seated.

Cost of the New Departure.

THE two converted cars have been thoroughly overhauled as to the motors and the truck, and have been provided with new staircases as well as the superstructure. The whole cost has been £129 16s. 3½d. each car, but as the repairs in the ordinary way would have cost about £17 each, the expense in connection with the alteration can only be put down at £82 7s. 8d. These facts and figures were put forth by the Mayor of Newcastle (Alderman J. Baxter Ellis), who is also chairman of the Tramways Committee, before an inspection and trial run on Tuesday. It may also be added that the whole of the work has been carried out by the Corporation officials at the local car works.

Tramways "Social" at Liverpool.

THE second annual social and dance of the Liverpool Corporation Tramway Employees' Social, Athletic, and Thrift Society took place on Tuesday evening in St. George's Hall, where about 1,000 employees were present with friends. The general manager (Mr. C. R. Bellamy) presided, and submitted the annual report of the society, which stated that the organisation, which has only been in existence two years, has a membership of 1,700, an income of £2,500 a year, and an expenditure of £2,300. A lengthy entertainment was provided in the Small Concert Room by members of the society. In the large hall a dance programme was sustained with spirit to music furnished by the band of the service. The members of the society precluded by duty from being present were similarly entertained the following evening.

South Shields and Motor 'Buses.

HAVING considered the report of the deputation which recently visited various places with the object of inspecting the motor omnibuses, the South Shields Tramways Committee now recommends "that as in their opinion the motor 'bus service is unreliable; the smell of petrol highly objectionable; the vibration excessive and discomforting to passengers; the shocks at periods of stopping, starting, and changing of speeds, severe and objectionable; and further, as no reliable data is obtainable as to the working costs of the motor 'buses, owing to the very short period they have been in use, but that everything tends to show that such working costs are high, and in excess of an electric tramcar service, the deputation cannot recommend the adoption of a motor 'bus service for the borough." On Wednesday evening the committee's report was adopted by 24 votes to 6.

At a meeting of the West Ham Education Committee on Wednesday night, it was agreed to recommend a 1s. 5d. rate, an increase of 1d. over last year. West Ham has now an education rate of 2s. 10d. a year, or higher by 5d. than any other town.

NOTES AND ANSWERS

(Continued from page 269).

676.—POOR LAW—Rations of Officers—May these be Bartered Away?

It has been the practice of a certain board of guardians to allow each indoor workhouse officer—in addition to his ordinary rations—to obtain from the groceries contractor delicacies to the value of a fixed sum per week. It has been ascertained, however, that one officer has procured ordinary groceries and has disposed of them for cash to another person employed by the board, but who is not supplied with rations.

May an officer legally dispose of his rations in the manner indicated? Do any of the Consolidated Orders bear on the point?—"A. C. M. J."

There does not appear to be any express provision in the General Consolidated Order, or in any of the General Orders of the Local Government Board, or its predecessors in office, which deals with the point raised. It is clear, however, on general principle, that an officer to whom certain rations are allotted by the guardians, under the circumstances indicated, cannot lawfully vary the order and barter the goods thus obtained with another officer for a consideration. The question is, however, one rather of discipline than of law, and if the circumstances were reported to the guardians, we have little doubt that they will consider the practice deserving of censure, and, not improbably, stop the allowance of extra rations (that is, those which are in the nature of luxuries), granted to the offending officer.

677.—ALTERATIONS OF BUILDINGS IN URBAN DISTRICT—Objection by Adjoining Owners, Supported by Council—Validity.

Before the urban council here there have been a few plans deposited showing alterations to front and back premises by substituting a bay window instead of the existing ordinary window. In each case the local authority has objected to them until the depositors have got the permission of the adjoining owners on both sides. Would you kindly explain to me on what authority it can do so, when the alterations comply with the bye-laws? The Council seems to be fighting the battle of the owners, who can take an action in the Courts if the alteration interferes with their rights.—"Ignorant."

It is provided by Sec. 3 of the Public Health (Buildings in Streets) Act, 1888, that "it shall not be lawful in any urban district, without the written consent of the urban authority, to erect or bring forward any house or building beyond the front main wall of the house or building on either side thereof, in the same street, nor to build any addition to any house or building beyond the front main wall of the house or building, on either side of the same." This provision as to the building-line only regulates building operations fronting to a street, and cannot affect any building at the back premises. Further, its enforcement does not, or ought not, in any way to depend upon the will of the adjoining owners of property. Except so far as the section quoted applies to the case, we are unable to see on what ground the urban authority can lawfully interfere with the proposed buildings, if they conform to the local bye-laws; nor on what ground the consent of the adjoining owners is required. If the proposed erections are likely to interfere with rights of "ancient light," or in any other way with the private rights of such owners, the matter must be fought out between the private parties concerned, and the council would have no jurisdiction to interfere. We suggest that our correspondent should write to the Clerk to the Council and request him specifically to state under what statutory or other lawful authority the council is acting in the matter. On hearing from him, we shall be pleased to deal with the question further, if necessary.

678.—OVERSEER APPOINTED BY TOWN COUNCIL—Refusal to Insert In Demand Notes Particulars of Borough Rate Rights of Council.

At a meeting of our town council, the oversee s (who are appointed by the council) were requested by resolution to furnish on the rate demand notes particulars of the various amounts which make the amount for the borough rate, as had always been done until 1904. It has been intimated by the overseers that they do *not* intend to comply with the request. I shall be glad to know if we have any power to compel the overseers to carry out the desires of the council. If not, what redress have we?—"Cantnar."

The authority of the Town Council appointing overseers over them is very limited. The overseers have certain definite duties, partly prescribed by statute, partly by Orders of the L.G.B., under statute, and partly derived from the common law. In so far as they depart from these, they will be exposed to certain liabilities, and the town council, as the appointing authority, would probably take the initiative in regard to the necessary proceedings. The form of demand note for poor-rates to be used by the overseers has been prescribed by the L.G.B. (see Order of 13th April, 1897, &c). That form does not provide for any details of the items included under "Borough Rate" being shown. It cannot, we think, be said to be illegal for the overseers to give more particulars in this respect than they are required to give by the Order; but, on the other hand, it is not competent for the town council, or any other authority, to compel them to give any such additional particulars.

CORDINGLEY'S MOTOR-CAR EXHIBITION.

THE above exhibition, which opened last Saturday, and closes to-morrow, is an annual fixture (now in its tenth year), which takes place at the Agricultural Hall, Islington, and is organised by Mr. Charles Cordingley, who is to be congratulated upon having got together a thoroughly representative collection of British vehicles of this class.

All the latest types of touring and light cars are on view, while the display of light delivery vans gives the event an interest for all who look to the motor-car to help—as it undoubtedly will—in the solution of the difficulties of delivery experieneed by commercial houses, and by agriculturists who are looking for vehicles to speed their produce to the nearest market town.

Of course, a number of 1905 model pleasure-cars and racers are exhibited, these being under the patronage of the Automobile Mutual Protection Association (of which the Earl of Shrewsbury is president), the Motor Van and Wagon Users' Association, and the Aero Club of the United Kingdom, the latter society adding variety with its special display of balloons, airships, &c.

One of the most interesting features is the heavy vehicle section, comprising a fine collection of motor-omnibuses, municipal vans for street-watering and the collection of dust, lorries, &c. These are comprehensive of all types of industrial motors, and in contemplating their immense strength and adaptability, one is not surprised that they are gradually ousting their competitor, the faithful old cart-horse.

As showing how representative is this exhibition of the British motor industry, it may be mentioned that some of the exhibits are from Coventry, Manchester, Birmingham, Hull, Glasgow, Bristol, Sheffield, Leeds, South Wales, Bradford, Oldham, Maidstone, Lincoln, Liverpool, Northampton, Edinburgh, Wolverhampton, Lowestoft, Tunbridge Wells, Salisbury, Gainsborough, King's Lynn, Berwick-on-Tweed, Basingstoke, besides many smaller towns where the advent of the motor-car has given promise of new prosperity.

To lend further interest, it was arranged that the annual meeting of the Motor Union—an organisation of motorists many thousands strong—should be held at the exhibition, as also the annual meeting of the Motor Van and Wagon Users' Association. It was further arranged that a reception should be accorded to the district engineers and surveyors, who were deputed by their authorities to make a thorough inspection of the exhibits.

"MUNICIPAL JOURNAL" ANALYSES OF ELECTRIC TRAMWAY ACCOUNTS.

1903-4.

	Population.	Date tramways started.	Length of street route. Miles.	Gauge. Ft.	In.	Capital outlay. £	Number of passengers carried.	Number of car miles run.	Total receipts. £	Working expenses. £	Percentage of expenses to rec'pts %	Nett receipts. £	Percentage of nett receipts to capital. Per cent.	Interest charges and lease rentals. £	Repayment charges. £	Surplus (+) or loss (−). £	Provision for depreciation and reserve. £	Contribution to rate fund.	Traffic receipts per car mile. d.	Expenses per car mile. d.	Average fare per passenger. d.	Electricity supplied by	Number of B.O.T. units used.	Price paid or cost of electricity per unit. d.
Aberdeen ..	165 000	Aug., 1898	14·14	4	8½	314 407	15.538.167	1.379,723	64 071	37 054	58	27.017	8 59	10,389	2 397	+14,231	14.231	nil	11·00	6 45	98	Elec. Dpt.	1.525.708	1·52
Ayr	33.000	Sept , 1901	5 69	4	8½	71.775	3 316.380	353.945	14.334	7 622	53	6.712	9 35	2.303	891	+3.518	3 518	nil	9·46	5·17	1 01	Elec. Dpt.	324.157	1 30
Birkenhead ...	113.300	Feb.. 1901	13 52	4	8½	345.960	11.327.932	1 349.701	55.946	34.748	62	21.198	6·13	10,538	8.777	+1,883	1,883	nil	9·72	6·18	1·16	Own wrks	2.128.607	·72
Blackpool ...	50.000	1885	9·62	4	8½	267,178	6 357,218	735,103	42.061	27.873	66	14.188	5·31	8 422	5 713	+53	nil	nil	13·50	9·10	1·56	Elec Dpt.	1.008.529	1·83
Blackburn ..	188 000	1887	14·13	4	0	320.203	7,742.692	951,484	44.682	29 369	66	15.313	4·78	8.818	11 633	—5.138	nil	nil	10·94	7·41	1·34	Elec. Dpt.	1.785.712	1·50
Bolton	171.100	Jan., 1900	25·13	4	8½	504.509	19.895,496	2 188.030	95,096	54.7·6	58	40.380	8·00	12.233	13 654	+14.493	12.233	2.260	10·33	6·00	1·14	Elec Dpt.	3,098,292	1·25
Bournemouth ...	60 000	July. 1902	12·25	3	6	257 812	9.363 985	1.022.164	54.397	30.276	56	24.121	9·36	9.051	7.336	+7.734	nil	nil	12·31	7·11	1·34	Own wrks	1.601.039	·86
Bradford	324,000	July, 1898	48·52	4	0	818 205	39,639,44	4,546,942	197.438	135,869	69	61.569	7·52	*48,169	—	+13 400	2.917	nil	10·20	7·17	1·17	Elec. Dpt.	7.731.563	1 0 5
Brighton	123.500	Nov.. 1901	9·95	3	6	242 811	10 999 046	1,151,477	46 264	40,356	87	5.908	2·43	7,199	3.488	—4 779	nil	nil	9·60	8 41	1·00	Elec. Dpt.	1.774.988	1·50
Burnley	154,000	Dec., 1901	10·77	4	0	176,468	7,514.063	896,397	43,738	30,644	70	13,094	7·42	6,132	3,426	+3,536	3,536	nil	11·58	8·20	1·38	Elec. Dpt. & Nelson Crp.	1,461,700	1·79
Burton-on-Trent .	52.000	Aug.. 1903	5·74	3	6	82.500	2.566,134	282 378	11,943	8.919	75	3.024	3 67	1,533	773	+718	718	nil	9·84	7 58	1·08	Elec. Dpt.	362 827	1·46
Cardiff	168,000	May. 1902	14 63	4	8½	687,222	23,574,204	2 643 762	105.017	65 351	62	39.666	5·77	19 219	14,084	+6.363	403	642	9·24	5·93	1·04	Own wrks	5.896 506	·45
Chester	39,000	April. 1903	2·50	3	6	66,098	2,002,835	260,785	8.916	5.332	60	3,584	5·42	2.026	1,218	+340	nil	nil	8·17	4 91	1·06	Elec. Dpt.	239.072	1·75
Darwen	40,000	Oct.. 1900	4 36	4	0	79.272	2.236 102	253.345	12 371	8 413	68	3,958	4·99	2,411	1.982	—435	1.050	nil	10 92	7·97	1·24	Elec Dpt.	422 583	1·71
Dover	42,000	Sept., 1897	3·00	3	6	41.850	2,871,332	280.901	11.839	8.714	74	3,125	7·47	*2,205	—	+920	nil	nil	9·63	7 45	·94	Elec. Cpy.	319,413	2·75
Dundee	163,000	July, 1900	12 65	4	8½	263.382	11.420,985	942,969	44,437	28,521	64	15.916	6 04	6.837	5.000	+4 079	2.842	nil	11·15	7··6	·92	Elec Dpt	1,661,721	1·49
East Ham ...	104,000	June, 1901	6 82	4	8½	135 591	12,050,269	807.002	35,301	24 262	69	11.039	8 14	5,806	3.285	+1,948	1 356	nil	10 20	7·22	64	Elec. Dpt	920 696	1·75
Farnworth ...	50,000	Jan., 1902	4·33	4	8½	43.696	1.532,293	242 524	7.486	4 850	65	2,636	6·03	3 241	1,175	—1,780	nil	nil	7 40	4·80	1 17	Elec. Dpt.	317,126	·50
Glasgow	1.000,000	July, 1894	70 34	4	7¾	2.107.880	188 962 610	16.291.082	724,851	356.820	49	368.031	17·46	64,376	45.553	+258.102	233,102	25 000	10·58	5·26	·91	Own wks.	15,372 609	·42
Halifax	168,000	June, 1898	33 41	3	6	342 460	16 322 059	1 387.885	68.289	50,758	74	17,531	5·12	9.957	7.081	+493	493	nil	11 76	8 78	1·00	Elec. Dpt.	2 659.920	1·02
Huddersfield ...	100.000	Feb.. 1901	28	4	7¾	411 722	11 899.287	1.632.000	65.883	34 665	53	31 218	7·58	13 632	10.638	+6.948	11,687	nil	9 37	5·10	1·28	Own wks.	2.565.643	·34
Hull	248.000	July, 1899	13 60	4	8½	383.977	24 220 718	2 512.821	101.259	63 194	62	38.065	9·91	9 932	9 148	+18 985	7.485	11 500	9·61	6 04	1·00	Own wks	3 285.621	63
Ilford	52,000	Mar., 1903	6·50	4	8½	132.874	5.274.025	577.034	23 218	13.568	58	9 650	7·26	3.046	2,033	+4.571	4,571	nil	9 39	5 64	1·03	Elec. Dpt.	563.464	1·50
Kirkcaldy ...	34,100	Feb , 1903	5·25	3	6	78.731	2.770,936	301.779	10.189	7.623	75	2.566	3 26	2.012	471	+83	40	nil	7 90	6 06	·86	Elec. Dpt	395 071	1·75
Lancaster ...	40.300	Jan. 1903	3·41	4	8½	27.207	1.079,772	153.692	4.191	4.654	111	*loss* 463	—	1.245	1.125	—2 833	nil	nil	6·54	7·27	·93	Elec. Dpt.	199,600	2·00
Leeds	446 400	Feb , 1894	42·51	4	8½	1.107 977	60,739 234	6 091 437	281.418	185.598	55	125.820	11·36	27.639	27 094	+71,087	19.087	52,000	10·94	6 13	1·10	Own wks	9 518.680	·34
Liverpool... ...	760,000	1868	57	4	8½	1,863,485	113,057,234	11,734,838	533 394	335,621	63	200,773	10·77	52,932	51,598	+96,243	64,162	32,081	10·73	6 86	1·11	Elec Dpt. & Bootle Crp.	17,978,718	1 08
Manchester ...	750.000	June, 1901	79·49	4	8½	1,485 612	120,772,368	13 759 071	611.881	392.504	64	219,377	14·77	72.781	26.903	+119	69.693	50,000	10 52	6·85	1·20	Elec. Dpt.	16,815,764	1·49
Nelson	36.000	Feb., 1903	2·74	4	0	30.493	1.420.759	171,132	4.655	3,563	77	1,092	3 58	781	232	+79	nil	nil	6 47	5 00	·78	Elec. Dpt.	170.611	2·00
Newc'stle-on-Tyne	257.000	Dec., 1901	23·36	4	8½	1,054.493	39.715.120	4 059.907	184.170	120.700	66	63,470	6 02	28 896	22 638	+11,936	nil	nil	10.68	7·14	1·09	Own wks.	7.757 885	·36
Newport	76 000	April. 1903	8·50	4	8½	164 219	4,473.411	635.000	23.653	15.533	66	8 120	4 95	4.360	3.360	+400	nil	nil	8·63	5 87	1·22	Elec. Dpt.	641.860	1·50
Nottingham ...	240,000	Jan., 1901	16·25	4	8½	559,838	27.876 889	?.512.000	128.202	71 259	56	56,943	10·17	15,333	15.128	+26.482	13,482	13,000	12·07	6 81	1 09	Elec. Dpt.	3 768 601	1·25
Oldham	100.000	Dec.. 1900	17·93	4	8½	432.188	12.968.880	1.420.455	60.413	43 286	72	17.127	3 96	15.324	9,629	—7.826	nil	nil	10·01	7·31	1·10	Elec. Dpt.	2,177,309	1·50
Portsmouth ...	198.000	Sept . 1901	14·50	4	7¾	634.406	18.2 4 426	1.828.193	92 917	43.427	47	49.490	7 80	18 343	15.119	+16.028	16 028	nil	11·46	5·70	1·15	Own wks.	2.695.605	·55
Rochdale	86.000	May. 1902	3·96	4	8½	83.386	1.156.300	194.490	6 981	6.761	97	220	·26	2 851	1.406	—4.037	nil	nil	8·42	8 34	1·42	Elec. Dpt	393 180	1·47
Rotherham .	58.000	Jan., 1903	8·33	4	8½	105,762	4.914 479	525 840	21.341	15 602	73	5.739	5 42	2.088	1.261	+2.390	2,407	nil	9 57	7 12	1 02	Elec. Dpt.	806.291	1·50
Salford	300,000	Oct., 1901	32·50	4	8½	511,170	36,956,405	4,726,446	198,648	139,508	70	59,140	11 57	27,529	16,171	+15,440	3,440	12,000	10·08	7 09	1 29	Elec. Dpt. & Man Cp.	6,102 524	1 89
Sheffield	425.000	1872	32·50	4	8½	988,316	61.450,993	5.768,231	233.829	156.403	67	77.426	7·83	30 722	19 394	+27 310	33 771	8.249	9 67	6 51	91	Own wks.	9 460.618	48
Southampton ...	107 800	July, 1898	9 72	4	8½	198.621	9,890.952	1,144.350	53.501	36.640	68	16 861	8·49	5 935	4 720	+6.206	1 206	5.000	10 88	7 68	1·26	Elec. Dpt.	1.298 392	2 25
Southport ..	49.000	June, 1900	8·42	4	8½	118 364	3.837 208	431.019	17.646	10.986	62	6 660	5·63	3.803	3.198	—341	nil	nil	9 63	6 12	1·08	Elec. Dpt.	492.261	1·50
Stockport... ...	110,000	Aug., 1901	12·27	4	8½	140.276	3.170.854	606.476	19 074	12 914	68	6 160	4 39	4.196	1.334	+630	nil	nil	7·37	5·11	1·41	Elec. Dpt.	790,892	1 50
Sunderland ...	158.900	June 1900	10·92	4	8½	277.240	14 848 958	1 433 463	62 669	36,517	58	26.152	9 43	8.241	8,330	+9 581	5 567	4 014	10·46	6·11	1·01	Elec. Dpt	1 562 748	1·87
Wallasey... ...	56.500	Mar., 1902	8 48	4	8½	127.949	6 564,493	757,688	35.873	24.980	70	10,893	8·51	4.064	1 618	+5.211	4 500	2.650	11 17	7·91	1·29	Elec. Dpt.	1.243 340	1 63
Warrington ...	80,000	April. 1902	6·42	4	8½	94.563	3.940.305	419.036	16.264	12.012	74	4.252	4·50	3,024	2,011	—783	nil	nil	9 15	6·88	·97	Elec. Dpt.	496,268	1·90
Wolverhampton.	94 200	Mar., 1902	7·33	3	6	183.840	4 555,435	507.527	23.591	14,911	63	8.680	4 72	5,278	2 293	+1 109	3.475	nil	10 97	7·05	1·22	Elec Dpt.	773.208	1·66
Yarmouth ...	35,000	June, 1902	3·59	3	6	44,149	1,611.699	222.350	7,876	5,939	75	1.937	4 39	1,570	582	—215	nil	nil	8·33	6 41	1·15	Elec. Dpt.	172.939	2·50

* Includes Repayment Charges.

"STONWOD" FIREPROOF FLOORS.

A Fireproof, Acidproof, Aseptic, Dustproof, Verminproof Floor Covering, which will outwear Concrete, Wood Blocks, or any other form of floor surface.

IT IS CHEAP, SILENT, DURABLE, WARM, & EXCEPTIONALLY SANITARY.

Specially recommended for employment in Hospitals, Churches, Schools, Factories, Warehouses, Shops, Flats, Corridors, Offices, &c.

SEND FOR SAMPLES AND DESCRIPTIVE PAMPHLET TO

THE STONWOD FIREPROOF FLOORING Co., Ltd.,

109, VICTORIA STREET, WESTMINSTER, LONDON, S.W.

Telegrams: "Stonwod, London." Works: ASHFORD, MIDDLESEX. Telephone—5285 Westminster.

One Gallon covers from 60 to 70 square yards on a prepared surface.

"SANALENE"

The Latest Production.

A PERFECT ENAMEL PAINT.

Flows Freely, Hard Wearing, Easily Washed and Polished.

"SANALENE"

BLUE LABEL

For Inside Use.

FOR PRACTICAL WORK
BY PRACTICAL USERS.

Supplied in White or Colours, as desired.

For Colour List and Full Particulars, apply to

ASPINALL'S ENAMEL, Ltd.,

NEW CROSS, LONDON, S.E.

RED LABEL

For Outside Use.

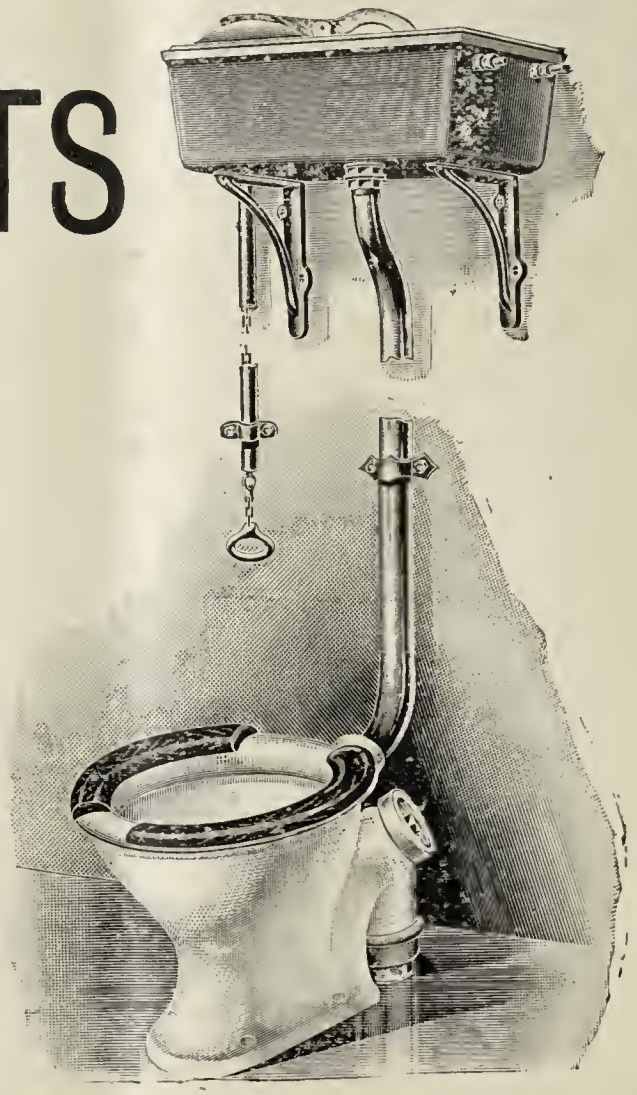
DOULTON'S

SPECIAL

SCHOOL CLOSETS

FOR

INFANTS AND CHILDREN.



These Closets are only 13½in. high, and are specially suitable for children. The pan and trap is in one piece, with brass inspection cap, and cleanses well with a 2-gallon cistern. It is made in two patterns, one with fixed side pieces, the other with lugs to take a hinged seat. Also made with side outlet.

DOULTON'S SPECIAL LIST OF SANITARY FITTINGS SUITABLE FOR SCHOOLS SENT ON APPLICATION.

Every description of High-class Sanitary Fittings for Mansions, Hotels, Clubs, Hospitals, Schools, and Public Buildings of all kinds to be seen in action at Showrooms—

ALBERT EMBANKMENT, LAMBETH, LONDON, S.E.

SPRING CLEANING.

Season of Tenders for Painting and Decorating. Some False Notions about Paint. Efficient Officers want the Best Material. Sanalene, the Latest Production in Enamel Paints: Why it is Superior. Approved by Leading Architects and Surveyors. Oriental Appreciation.

NOW that the dreary wet days of the concluding month of winter have passed, we may confidently look forward to some bright, sunshiny spring weather. There is no season quite so beautiful as spring. In the spring, Nature seems to be arousing herself as from a long sleep. She seems to be disrobing herself of all worn and sombre garments and clothing herself in the freshest, daintiest attire she can choose, as though she would woo admiration from the King of Day, in whose presence she delights. Poets have fitly likened this balmy season of the year to

MR. F. W. FRANKS, THE WELL-KNOWN REPRESENTATIVE OF ASPINALL'S ENAMEL, LTD., TRAVELLING IN THE EAST.

word of our leading local authorities; but in this matter of painting we hardly think sufficient attention is paid to the quality of the material used. The opinion is apt to be that any paint that can be procured in quantity and at a fairly cheap rate is as good as any other paint. As a matter of fact, there could scarcely be a more sadly mistaken notion. Paint that speedily cracks, that loses its gloss, or that holds the dust, is dear at any price.

The latest production in enamel paints, whilst possessing none of the above defects, has many things to recommend it to municipalities and other large users as a perfect enamel. It is named "Sanalene" on account of the very sanitary character which its hard, durable, polished surface imparts to the walls and buildings on which it is used.

Another satisfactory feature about the new enamel is that it contains no dangerous white lead to cause "painters' colic," and is, in fact, non-poisonous. Sanalene flows freely, has very great covering power, gives a beautiful porcelain finish to all surfaces to which it is applied, and dries in from ten to twelve hours only. It may be supplied in white, broken white and ivory, in gloss, egg-shell, or flat, and in popular art shades, numerous and beautiful enough to satisfy the most fastidious taste.

As a finish for the highest class of decorative work, this new enamel paint is a veritable boon to the painting trade. In its simple form, it is a white enamel of exceptional purity, durable, and artistic in appearance, whilst, as it can be washed and polished to a condition equal to new in the event of its being affected by dirt or atmospheric causes, it remains, if not absolutely "a thing of beauty and a joy for ever," in that condition for as long a period as can reasonably be required. By a special process of manufacture, Sanalene has far greater toughness and covering power than two coats of oil paint, so that the decorator who knows his business has no difficulty in turning out work from this enamel that will give complete satisfaction to his clients, both as regards its appearance and its durability.

Although Sanalene has not long been before the public, it is rapidly attaining an almost world-wide reputation. Our illustration appropriately indicates the progress it is making in the far-off East, whose people always have been among the first to appreciate anything that tends to cleanliness and beauty. Over here, it is approved and specified by our leading architects and surveyors, many of whom are so convinced of its superior merits that they have used it in their own houses.

We may add, in regard to this new enamel, that it is of British manufacture. It is produced by Aspinall's Enamel, Ltd., and is prepared in accordance with the experience gained by that well-known firm in the practical study of enamels. The firm has been careful to see that the materials employed in the manufacture of Sanalene are chemically pure, and, considering its wonderful elasticity, its smooth surface, its freedom from cracks, blisters, or flaws of any kind, there can be little doubt that Sanalene is a sanitary enamel which will continue to enhance the already high reputation of the firm for goods of this description. Specimens, samples, and colour-books may be obtained on application to Aspinall's Enamel, Ltd., New Cross, S.E.

---

healthy, happy youth—the period of life when every phase of existence is apt to assume some harmonious shade of colour. In short, spring is the season of renovation, when everything must be re-clad; and here Art steps in to assist Nature. The dust and dirt of winter have accumulated, and there is considerable virtue in a fresh coat of paint.

A glance at that feature of our paper which caters for "The Surveyor and Contractor" will show that certain municipal authorities are inviting tenders for painting and decorating; they are preparing for what in homely phrase we term "spring cleaning." Indeed, painting may be said to form a very important factor in municipal life. The official property of the ratepayer should not only be good, but it should look attractive. It must be admitted that efficiency in every department is the watch-

THE SURVEYOR AND CONTRACTOR.

Schemes in Progress and Suggested. Tenders Open. New Inventions for Local Government Enterprises. The Latest Patents.

Tenders Wanted.

Advertising, Southampton Corporation.
April 3.—For the sole right of advertising on their tramcars for a period of 5 years. See advt. in this issue. Mr. R. R. Linthorne, Town Clerk.

Ambulance, Leeds Guardians.
April 4.—For the supply of a four-wheeled ambulance, for use at their workhouse and infirmary, Beckett Street. Mr. James H. Ford, Poor Law Offices, South Parade.

Architectural Competition. Rochester Corporation.
May 15.—Designs for the erection of a technical institute; three premiums of 50, 20, and 10 guineas. Mr. Apsley Kennette, Town Clerk.

Artisans' Dwellings, &c., Chiswick U.D.C.
March 28.—For the erection of the above, and for certain street improvements. Mr. Ernest F. Collins, Clerk of the Council.

Asphalting, Leeds Corporation.
April 1.—For the supplying and laying of about 1,288 square yards of tar macadam at Stanningley and Bromley Parks. Town Clerk's Office.

Asphalte, &c., Felixstowe U.D.C.
April 3.—For the supply and delivery of the above and various materials for one year, and also for team labour. Mr. F. B. Jennings, Clerk to the Council.

Asphalting, Melton Mowbray R.D.C.
April 3.—For asphalting and repairing the footpaths in the district. Mr. Arthur H. Marsh, Clerk to the Council.

Automatic Machines, Ramsgate Corporation.
March 31.—For the privilege of placing and keeping same in various parts of the borough for one year from May 1st, 1905. Mr. E. C. Byrne, Town Clerk, Albion House.

Barn, Boston Corporation.
April 3.—For erection of above on their farm in the East Fen. Mr. M. Staniland, Town Clerk, Municipal Buildings.

Baths, Blackburn Corporation.
March 28.—For erection of public baths at Belper Street. Mr. William Stubbs, Borough Engineer, Municipal Offices.

Blinds, Plymouth Education Authority.
March 29.—For the supply of 30 blinds to the Technical School. Mr. E. Chandler Cook, 18, Princess Square.

Boiler Flues, Hammersmith Borough Council.
April 5.—Mr. H. Thompson, Town Clerk.

Books, &c., Barnet Guardians.
March 30.—For the supply of books, stationery, &c., for the offices of the clerk, master, relieving officers, &c., for the ensuing three years. Mr. G. Dickinson Byfield, Clerk to the Guardians.

Brick Sewer, Keighley Borough Council.
April 4.—For the reconstruction of about 575 yards of egg-shaped and circular brick sewer. Mr. W. H. Hopkinson, Borough Engineer.

Bridge, Berks County Council.
April 7.—For re-building York Poole Bridge, at Shinfield, near Reading. Mr. Joseph Morris, County Surveyor.

Building, Aston-in-Makerfield U.D.C.
April 10.—For the erection of new administrative building, scarlet fever and diphtheria pavilions, laundry, disinfector, stables, and mortuary buildings, &c. The Clerk to the Council.

Building, Willesden Guardians.
March 29.—For the erection of a receiving house for children in Acton Lane. Mr. J. Hutton Haylor, Clerk to the Guardians, 329, High Road, Kilburn, N.W.

Building, Ebbw Vale U.D.C.
April 4.—For the work of erecting a caretaker's house, with boundary wall and outbuildings. Mr. Tho. Hughes, Clerk to the Council.

Building, Fulham Borough Council.
March 29.—For the erection of a branch library in Lillie Road. Mr. R. M. Prescott, Town Clerk.

Building Sites, Stepney Borough Council.
May 1.—Building sites of not less than 16,500ft. super within the borough of Stepney, suitable for the erection of a council chamber and municipal offices. Mr. George W. Clarke, Town Clerk, Municipal Offices, 15, Great Alie Street, Whitechapel, E.

Building, Tetbury Guardians.
March 28.—For alterations and additions at the workhouse. Mr. V. A. Lawson, Architect, 17, Roweroft, Stroud.

Building, Southwark Guardians.
March 30.—For the execution of certain alterations and additions to the medical superintendent's house at their infirmary, East Dulwich Grove, S.E. Mr. Howard C. Jones, John Street West, Blackfriars Road, S.E.

Butter, Pontefract Guardians.
April 7.—For the supply of the best Danish and English fresh butter for six months. Mr. T. J. Amies, Clerk to the Guardians.

Cables, &c., Hornsey Town Council.
March 27.—For the supply of cables, junction-boxes, fuse-boxes, meters, &c. Mr. F. D. Askey, Town Clerk, 99, Southwood Lane, Highgate, N.

Carnegie Free Library, Batley Borough Council.
April 5.—For the masons', joiners' plumbers', plasterers', slaters', painters', heating engineers', and electrical engineers' work respectively in the erection and completion of these buildings. Mr. Jos. Hanson Craik, Town Clerk.

Cartage, Chorley R.D.C.
March 27.—For the carting of road material for the highways repairable by the Council in each parish in the district for a period of one year from the 31st March, 1905. Mr. John Whitfield, 10, High Street.

Carting, Cheshire County Council.
March 31.—For carting macadam and other materials for the main roads for the year ending 31st March, 1906. Mr. Harry F. Bull, County Surveyor, Chester Castle.

Carting and Haulage, Bucks County Council.
March 29.—For general carting and for haulage of granite from various stations and wharves to the main roads throughout the county during the year ending March 31st, 1906. Mr. R. J. Thomas, County Surveyor, Aylesbury.

Carting, Cannock R.D.C.
March 29.—For carting road material from the stations and wharves on to the roads within their district for the twelve months ending March, 1906. Mr. A. W. Carver, Clerk to the Council.

Cast-Iron Water Mains, Ilfracombe U.D.C.
March 27.—For the supply of about 1,550 yards of 9in., 2,350 yards of 6in., and 7,000 yards of 4in. mains as above, together with special castings, bends, &c. Mr. Oswald M. Prouse, Engineer to the Council.

Cells, Yorkshire Inebriates Act Joint Committee.
March 31.—For the erection of two sets of refractory cells in connection with the inebriates' reformatory at Cattal, near York. Mr. J. Vickers-Edwards, Architect, Wakefield.

Cemetery Works, Radcliffe U.D.C.
April 5.—For the erection and completion of registrar's house and mortuary chapel, &c. Mr. S. Mills, Clerk to the Council.

Clothing, Halifax Corporation.
March 29.—For the supply of about 250 tunics, 250 pairs of trousers, and 40 waterproofs for the tramways employees. Mr. Keighley Walton, Town Clerk.

Coal, Hunslet Guardians.
March 29.—For the supply of coal for six months from the 29th inst. Mr. Fred. W. Mee, Clerk to the Guardians.

Coal, Newport (Fife) Town Council.
April 3.—For the supply of the above for 12 months. Mr. John Scrimgeour, Town Clerk.

Coal, &c., Alloa Town Council.
March 25.—For the supply of splint coal, coking coal, nuts and dross, over the ensuing year ending 15th May, 1906. Mr. F. G. Ewing, Town Clerk.

Coal, Carnarvon Corporation.
April 8.—For the supply of good household coal for one year, from May 1, 1905, for various police stations. The Chief Constable.

Coal, Milford Guardians.
March 25.—For delivering and trimming in the workhouse yard, on or before April 22, 160 tons of best screened English coal. The Chairman of the Guardians.

Coal, Perth Town Council.
March 27.—For the supply of 2,500 tons of small coal. Mr. John Begg, Town Clerk.

Concession for Sale of Salis Water, Bath Corporation.
April 8.—For the concession (which will extend over a long period of years) of above, and exclusive rights connected with the aeration and sale, in aerated form, of the mineral water issuing from the hot springs of Bath. Mr. Fredk. D. Wardle, Town Clerk.

Condensing Plant, Rathmines U.D.C.
March 27.—Mr. F. P. Fawcett, Clerk to the Council, Town Hall, Rathmines, co. Dublin.

Condenser, Yarmouth Corporation.
March 29.—For supply and delivery of surface condenser, with steam-driven air and circulating pumps. Mr. W. E. Stephens, Town Clerk.

Deal Ends, Islington Guardians.
March 28.—For the supply of 150 fathoms of Baltic yellow deal ends for firewood, to be delivered at the workhouse, Cornwallis Road, Holloway. Mr. Edwin Davey, Clerk to the Guardians, St. John's Road, Upper Holloway, N.

Designs for Municipal Buildings, Lambeth Borough Council.
March 30.—Mr. H. J. Smith, Town Clerk.

Designs for Libraries, Cardiff Corporation.
June 17.—From architects who have been in practice not less than six months as principals in Cardiff, for branch libraries to be erected at Canton and Cathays.

Designs for Libraries, King's Norton U.D.C.
April 26.—Architects resident in or practising within the city of Birmingham may on certain conditions enter into above architectural competition for a library to be erected on the site in Church Hill, King's Norton. Mr. Edwin Docker, Clerk to the Council, 10, Newhall Street, Birmingham.

Destructor and Flag Plant, Sydney (N.S.W.) Municipal Council.
May 30. For the supply and erection of a six-cell refuse destructor, and for a flag-making plant. See advt. in this issue. Mr. Thomas H. Nesbitt, Town Clerk.

Disused Material, Birkenhead Corporation.
March 28.—For the purchase and removal of above from electricity works. Mr. Alfred Gill, Town Clerk.

Dormitory, Nottingham Asylum Committee.
March 28.—For the erection of a new dormitory at the City Asylum. Mr. Edwin T. Ronald, Clerk to the Visitors.

Drapery and Haberdashery, Bristol Guardians.
April 7.—For the immediate supply of a quantity of above. Mr. J. J. Simpson, Clerk to the Guardians.

Dust Vans, &c., Wood Green U.D.C.
March 29. For the supply of 12 slop vans, 7 dust vans, 5 water vans, and 1 water cart. Mr. J. W. Britton, Clerk of the Council.

Electric Tramcars, Birmingham City Council.
April 4.—For the supply, delivery, and erection of 200 electric tramway cars. Mr. Alfred Baker, 254a, Corporation Street.

Electric Tramcars, Birmingham City Council.
April 4.—For the supply, delivery, and erection of 200 electric tramway cars. See advt. in this issue. Mr. Alfred Baker, General Manager, Tramways Department, 254a, Corporation Street.

Feeder Cables, Stockport Corporation.
March 30.—For the supply and laying of electrical feeding cables. Robert Hyde, Town Clerk.

Furniture, Hammersmith Borough Council.
March 28.—Furniture and fittings for the central library, Brook Green Road, W. Mr. H. Thompson, Town Clerk.

Fire Brigade Horses, &c., Kingston-upon-Thames U.D.C.
April 4.—For the supply of horses and drivers for the fire engine and escape at No. 1 station. Mr. Harold A. Winser, Town Clerk.

Filtering Material, Harrogate Corporation.
April 8.—For the supply and delivery of about 6,500 tons of honeycombed slag and about 6,000 tons of clinkers. Mr. E. Wilson Dixon, Engineer, 1A, Cambridge Crescent.

Furniture, Roxburgh Asylum Board.
March 30.—For the furniture and furnishings, required for their new male hospital. The Medical Superintendent, Roxburgh District Asylum, Melrose.

Gas Plant, Coleraine U.D.C.
March 28.—For supplying and erecting above. Mr. William Henry, Clerk to the Council.

Granite and Other Road Material, Gainsborough U.D.C.
March 29.—For the supply and delivery of above from time to time during the year ending 31st March, 1906. Mr. Sam W. Parker, Engineer and Surveyor, Council Offices.

Granite, Chelmsford Guardians.
April 10.—For 100 tons of rough granite for breaking by casual paupers. Mr. W. W. Duffield, Clerk to the Guardians.

Granite, Brentford Guardians.
March 28.—For the supply of 400 tons of best hard Guernsey granite spalls, to be delivered, cartage free, at the casual wards, Isleworth. Mr. William Stephens, Clerk to Guardians.

Haberdashery and Drapery, London County Council.
March 30.—For the supply of above for 12 months from April 1st, 1905, to nine asylums. Mr. H. F. Keene, 6, Waterloo Place, S.W.

Heating Apparatus, Metropolitan Asylums Board.
April 4.—For hot-water heating apparatus at Gore Farm Upper Hospital, near Dartford, Kent. Mr. T. Duncombe Mann, Clerk to the Board, S.W.

Heating, Boston Guardians.
April 15.—For heating by low pressure hot-water the infirmary buildings, part existing and part proposed to be erected. Mr. John M. Simpson, Clerk to the Guardians.

Horse Hire and Materials, Truro City Council.
April 3.—For the supply of above for 12 months ending March, 1906. Mr. Measham Lea, City Surveyor.

Hospital Wing, Portsmouth Corporation.
March 28.—For constructing, completing, and maintaining in thorough repair a new wing and an extension of the boundary wall at the infectious diseases hospital at Milton. Mr. Alexander Hellard, Town Clerk.

Hire of Horses, Folkestone Corporation.
March 27.—For the supply on hire of five horses and harness for carts on corporation works. Mr. A. E. Nichols, Borough Engineer.

Hymn Books, West Riding County Council.
April 1.—For printing above for use in elementary schools. The Clerk of the Council, County Hall, Wakefield.

Iron Pipe Sewer, Middleton Corporation.
April 5.—For the construction of above. Mr. Frederick Entwhistle, Town Clerk.

Ironmongery, &c., Dorchester Borough Council.
March 29.—For supplying above and for horse hire, repairs to harness, &c. Mr. A. G. Symonds, Town Clerk.

Labour and Materials, Brighton Corporation.
March 31.—For painters', glaziers', carpenters', joiners', &c., work. Mr. Hugo Talbot, Town Clerk.

Latrines, Yeovil Borough Council.
March 31.—For sundry alterations to the latrines at the Hendford Schools. Mr. A. Linnett, Clerk to the Education Committee.

Laundry Machinery, Boston Guardians.
April 15.—For laundry fittings, machinery, engine and boiler for the new workhouse laundry. Mr. John M. Simpson, Clerk to the Guardians.

Laundry Work, Bradford Education Committee.
March 25.—For the weekly collection and washing of towles used at the various public schools within the city. Mr. T. Garbutt, Education Office, Manor Row.

Library, Fulham Borough Council.
March 29. For the erection of a branch library. Mr. R. M. Prescott, Town Clerk.

Library, Whitehaven Town Council.
April 3.—For the various works in connection with the erection of the Carnegie Public Library. The Town Clerk.

Lift Pumps, West Ham Guardians.
March 29.—For the supply, delivery, and fixing of hydraulic lift pumps, air compresser, and connections at their infirmary, Whipps Cross Road, Leytonstone. Mr. Fred. Hilleary, Union Workhouse, Leytonstone, N.E.

Livesey Washer, Stockport Corporation.
March 29.—For the supply and erection of above. Mr. Robert Hyde, Town Clerk.

Loans, Sunderland Corporation.
Of £50 and upwards, at six months' notice, or for a fixed period. See advt. in last issue, Mr. Haswell Brown, Borough Accountant, Town Hall.

Loans, Islington Borough Council.
The above Council is prepared to receive loans up to £39,080, at 3 per cent., for periods of eighteen months, three years, or five years, at option of lender. Mr. Wm. F. Dewey, Town Clerk, Town Hall.

Materials, &c., Chatham Town Council.
March 30.—For the supply of 2,150 tons of broken granite or other hard stone.

Materials and Labour, Chelmsford R.D.C.
April 3.—For the supply of materials, team labour, and manual labour, for the whole of the parishes in their district, for the year ending 31st March, 1906. Mr. H. Glynn Warne, Surveyor of Highways, Avenue Chambers, Market Road.

Materials, Oxford Corporation.
March 29.—For the supply of various road materials for two years from the 12th of April next. Mr. Richard Bacon, Town Clerk.

Materials, Romney Marsh R.D.C.
March 29.—For the supply and delivery of some 3,000 tons of road materials. Mr. W. B. Smith, District Surveyor, New Romney.

Materials, &c., Sandwich Borough Council.
April 1.—For the supply of 200 tons of 1¼in. broken granite, 40 tons chips, &c. Mr. A. J. Firby, Borough Surveyor.

Materials, Gravesend Borough Council.
March 30.—For the supply of various road materials, bricks, &c. Mr. H. H. Brown, Town Clerk.

Materials, &c., Sedgefield R.D.C.
March 29.—For road materials, and for loading. The Clerk of the Council.

Materials, Gateshead Borough Council.
March 27.—For the supply of various road materials for one year. Mr. William Swinburne, Town Clerk.

Material and Cartage, Thakeham R.D.C.
March 27.—For the repair of highways in 18 parishes. Mr. Arthur Flowers, Storrington, Pulborough.

Mortuary, Essex County Council.
April 1. For the erection of a new mortuary building at the Essex County Lunatic Asylum. Dr. Amsden, Asylum, Brentwood.

Musical Performances, Nottingham Corporation.
March 30.—For providing above, at the Castle during the coming season. Mr. Samuel G. Johnson, Town Clerk.

New Bridge, Aberdeen County Council.
April 3.—For the erection of a new bridge, constructed of steel girders and masonry, over the River Bogie, at Smithston, near Gartly. Mr. James Barron, Engineer to the Council.

Noran Water Scheme, Arbroath Corporation.
April 6.—For various works in connection with the above. Mr. W. K. Macdonald, Town Clerk.

Oil Engine, Halstead U.D.C.
March 31.—For the supply and fixing of an 8-b.h.p. oil-engine and 4in. centrifugal pump. Mr. W. A. Nicholson, Surveyor.

Old Steam Trams, Wigan Corporation.
March 28.—For the old steam tramcars and engines. Mr. Harold Devons, Town Clerk.

Overcoats, Pontypridd U.D.C.
March 28. The above for their motor-men and conductors. Mr. J. Colenso Jones, Clerk to the Council.

Painting, &c., Halifax Corporation.
April 13.—For decorating and painting certain portions of the interior of the Town Hall. Mr. Keighley Walton, Town Clerk.

Painting, Bermondsey Guardians.
April 13.—For painting and other works to certain parts of the interior and the whole of the exterior of the buildings, including outbuildings, at their workhouse, Ladywell, S.E. Mr. E. Pitts Fenton, Guardians' Offices, 283, Tooley Street, S.E.

Painting, &c., Bradford Corporation.
March 27.—For internal painting required at the central fire station. Mr. Frederick Stevens, Town Clerk.

Painting, &c., Liverpool Board of Economy.
March 25.—For painting, &c., the ironwork and woodwork on outside of the hospital, nurses' home and mortuary, Royal Southern Hospital. Mr. Samuel James, Secretary.

Painting, Shrewsbury Corporation.
April 1.—For painting exterior and interior of the old market hall, &c. The Town Clerk.

Painting, Londonderry County Council.
March 27.—For painting at the County Infirmary. Mr. James Stewart, 21, Shipquay Street, Derry.

Pavements, &c., Swansea R.D.C.
April 5.—For renewing and relaying the pavements, kerbing, and channelling in Upper and Lower Lime Streets and Trinity Street, Gorseinon.

Paving and Fencing, Hove Corporation.
April 5.—For providing and laying tar paving on King's Gardens Esplanade, and providing and erecting iron fencing and piers by side of path adjoining. See advt. in this issue. Mr. H. Endacott, Town Clerk.

Paving, &c., Herne Bay U.D.C.
April 5.—For the levelling, paving, &c., of four roads within the district. Mr. Joseph Jubb, Clerk to the Council.

Paving, &c., Eastleigh U.D.C.
April 4.—For the sewering, making-up, and lighting, and for tar paving the footways of three roads. Mr. Henry White, Clerk to the Council.

Paving, Islington Borough Council.
March 28. For paving the carriageways of Packington Street and Newington Green Road with compressed asphalte and part with wood blocks; of Newington Green and St. Paul's Place, from Newington Green Road to the south side of Northampton Park, with compressed asphalte; and part of Nelson Terrace with granite setts. Mr. W. F. Dewey, Town Clerk.

Pipes, Settle R.D.C.
March 27.—For the supply and delivery of cast-iron socket and spigot water pipes, bends, and special pipes. Mr. T. E. Pearson, Clerk to the Council.

Plumbing, Belfast Corporation.
March 28.—For plumbing work, &c., in connection with two asylum villas in course of erection at Purdysburn. Mr. Samuel Black, Town Clerk.

Printing, Leyton U.D.C.
March 28.—For general printing for one year and three years respectively. Mr. R. Vincent, Clerk to the Council.

Printing and Stationery, Durham County Council.
March 31.—For the above for three years. Mr. Ralph Simey, Clerk to the Council.

Printing, Rochdale Corporation.
April 2.—For the printing of a catalogue of juvenile books for the Library Committee. Mr. George Hanson, Librarian.

Private Street Works, Ilford U.D.C.
March 28. For levelling, metalling, and making a good part of Wellesley Road. Mr. John W. Benton, Clerk to the Council.

Provisions. Builders' Repairs, &c., Swaffham Guardians.
March 29.—For the supply of above and for repairs at workhouse during the ensuing half-year. Mr. Sydney Matthews, Clerk to the Guardians.

Provisions and Stores, Blandford Guardians.
March 29.—For provisions and all other articles required in the workhouse from the 1st April to the 29th September next; and for printing and stationery from the 1st April to the 30th March, 1906, inclusive. Mr. S. Traill, Clerk to the Union.

Provisions and Stores, Tewkesbury Guardians.
April 3.—The above for the use of the workhouse for periods of three and six months respectively. Mr. H. A. Badham, Clerk to the Guardians.

Provisions, Bovril, Oil, &c., Windsor Guardians.
March 27.—For supplying above, for indoor and outdoor relief, for a period of six months. Mr. Philip Lovegrove, Clerk to the Guardians.

Provisions and Stores, Neath Guardians.
March 27.—For the supply of above to the workhouse, Neath, and to the cottage homes, Bryncoch, for six months, from March 28. Mr. Howel Cuthbertson, Clerk to the Guardians.

Provisions and Stores, Plymouth Corporation.
March 27. For the supply of above to the borough asylum. Mr. J. H. Ellis, Clerk, at the Municipal Buildings.

Purchase of Stable Manure, Hastings Corporation.
April 3. From their stables at Rock a-Nore, Silverhill, and Bopeep, for a period of either six or twelve months from April 10th next. Mr. Ben F. Meadows, Town Clerk.

Refuse, &c., Trustees of Southwark Borough Market.
March 29.—For the removal of above. Mr. A. Musgrave, Market Offices, Cathedral Street, S.E.

Renting Gardens, Bristol Corporation.
April 3.—From persons desirous of renting for three years the productive fruit, flower, and vegetable gardens attached to Ham Green House, on the south side of the River Avon. Mr. T. H. Yabbicom, City Engineer, 63, Queen Square.

Removal of Patients, Lanchester R.D.C.
March 29.—For the removal of cases of infectious diseases from the area of this Council to various hospitals; contract will be for three years. Mr. W. H. Ritson, Lanchester, Durham.

Road Materials, Malling R.D.C.
March 28.—For 1,700 cubic yards of quartzite, basalt, or granite. Mr. Fredk. J. Allison, Clerk to the Council.

Road Materials, Sutton U.D.C.
March 29.—For the supply of above during the year ending March 31st, 1906. Mr. C. Chambers-Smith, engineer and surveyor to the Council, Municipal Offices.

Road Metalling, Truro City Council.
April 3.—For the supply and delivery of 1,100 tons of 2½in. of above. Mr. Measham Lee, City Surveyor.

Roads, Sheringham U.D.C.
March 28.—For making up of certain roads. Mr. Edgar C. Rolfe, Clerk to the Council.

Roads, Staffordshire County Council.
April 1.—For the supply and cartage of road materials, tools, and road implements for six districts in the county. Mr. James Moncur, County Buildings, Stafford.

Road Materials, Bridge R.D.C.
March 27.—For the supply of above, and also for team labour. Mr. T. Louis Collard, Clerk of the Council.

Scavenging, Oldbury U.D.C.
March 27.—For a period of one year from April 1, 1905, and three years from same date. Mr. W. Shakespeare, Clerk to the Council.

Scavenging, Wortley R.D.C.
March 30.—For the emptying, cleansing, and disinfecting of the ashpits, privies, and cesspools in ten districts. Mr. William Dransfield, Clerk to the Council, Penistone.

Scavenging, Lunesdale R.D.C.
March 29.—For the removal of house refuse, and the cleansing of earth closets, &c., in Caton and Brookhouse, for the twelve months ending March, 1906. Mr. A. Harold Strachan, Clerk to the Council, Hornby.

Scavenging, Norton R.D.C.
April 10.—For the emptying of ashpits, &c., in the parishes of Dore and Totley. Mr. Thomas Smith, Clerk to the Council.

School, &c., Mountain Ash U.D.C.
April 15.—For the erection of a mixed school and the execution of works connected therewith at Abertaf, Abercynon. Mr. A. Morgan, Director of Education.

School Requisites, Maidstone Corporation.
March 25.—Various publications and materials as above. Mr. S. Lance Monckton, Town Clerk.

Sewer Construction, Glasgow Corporation.
March 28.—For work necessary in connection with above, chiefly within the Burgh of Pollokshaws. Mr. John Bowers, Town Clerk, City Chambers.

Sewage Disposal, Featherstone U.D.C.
March 31.—For the construction of sewage disposal works for the southern watershed of their district. Mr. Charles Lowden, Clerk to the Council, Ropergate, Pontefract.

Sewer Works, Drogheda Guardians.
March 30.—For work in connection with the workhouse sewers. Mr. Thomas Dowdall, Clerk to the Guardians.

Sewer, Frinton-on-Sea U.D.C.
April 3.—For the construction of about 780 lineal yards of 9in. pipe sewer. Mr. P. O. Macdonald, Clerk to the Council.

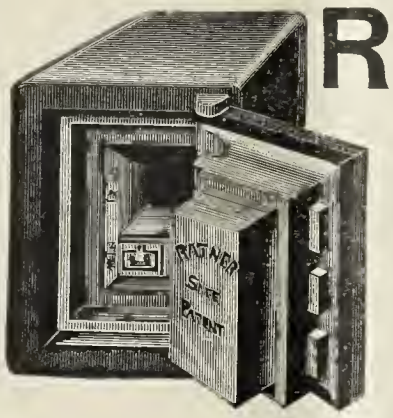
Sewers, &c., Rugby R.D.C.
March 31.—For constructing sewers and outfall works at Bilton. Mr. J. W. Pendred, Clerk to the Council.

Sewers, &c., Blaina (Mon.) U.D.C.
March 29.—For the laying of 500 lineal yards of stoneware pipe sewers, with manholes, &c. Mr. J. A. Shepard, Town Hall, Tredegar.

Sewers, Western Valleys Sewage Board, Newport (Mon.).
April 8.—For the construction of the main outfall sewer, tank sewer, and sea outfall, from Aberbeeg to low-water mark in the Bristol Channel. Mr. T. S. Edwards, Clerk to the Western Valleys (Mon.) Sewage Board, 24, Stow Hill.

Sewerage, &c., Birmingham Corporation.
March 29.—For the construction of about 900 yards of brick foul and storm-water sewers in Gooch Street and Longmore Street, and about 560 yards of pipe and storm-water sewers in Cox Street West, together with river crossing, manholes, and other incidental works. Mr. John Price, City Engineer and Surveyor.

FIRE PUMPS
AND
FIRE FITTINGS
OF EVERY DESCRIPTION,
FOR
WAREHOUSES, OFFICES,
MUSEUMS, LIBRARIES, &c.
MANUFACTURED (and if necessary, fixed) BY
HAYWARD-TYLER & Co.,
HYDRAULIC, ELECTRICAL & SANITARY ENGINEERS,
99, QUEEN VICTORIA STREET, LONDON, E.C.
TELEGRAMS: TYLEROX, LONDON. TELEPHONES: 192 & 199, BANK.



RATNER
Twelve Corner Bent Solid Steel
SAFES,
STRONG ROOM DOORS.
STEEL STRONG ROOMS, SAFE DEPOSITS,

As supplied to the following, among other Public Bodies:—

ADMIRALTY, 500 Safes.
BOARD OF TRADE.
H.M. BOARD OF WORKS.
H.M. POST OFFICES.
WAR OFFICE, 300 Safes.
DUBLIN CASTLE.
INDIA OFFICE.
CROWN AGENT FOR THE COLONIES.

ROTHERHITHE TOWN HALL.
TOWN HALL, BELFAST.
CORK HARBOUR COMMISSIONER.
CORK COURT HOUSE, CORK.
LONDON COUNTY COUNCIL.
GUARDIANS OF THE POPLAR UNION. Three large Registrar Safes.
GUARDIANS OF THE WIGAN UNION.
GUARDIANS OF BISHOP AUCKLAND UNION.
GUARDIANS OF PONTEFRACT UNION.
GUARDIANS OF THE WESTMINSTER UNION.
FARNBOROUGH TOWN HALL.
BEXHILL URBAN DISTRICT COUNCIL.
HAMPSTEAD BOROUGH COUNCIL.
RADSTOCK U.D. COUNCIL.
BLACKPOOL TOWN HALL.
GREAT YELDHAM PARISH COUNCIL.
MARKET HARBOROUGH U.D.C.
DEPTFORD BOROUGH COUNCIL.
PADDINGTON VESTRY.
ROTHWELL U.D.C.
PENGE DISTRICT COUNCIL.
WYNDIGATE DISTRICT COUNCIL.
BROMLEY URBAN DISTRICT COUNCIL.

The RATNER SAFE CO., Ltd., have just secured an order for a Drill-proof Strong Room for the Premier Diamond Mines of Johannesburg (a company which, with a capital of £85,000, made last year a profit of £670,000, and expects this year to make £2,000,000). It will be the strongest room ever constructed, and the order was secured after severe competition not only with the other English makers, but with American makers as well.

Catalogues and all particulars free on application to
51, MOORGATE STREET, E.C.

Sewerage, Sevenoaks R.D.C.
April 4.—For the construction of a nine-inch stoneware pipe sewer, about 930 yards in length, at Dunton Green. Mr. G. F. Carnell, Clerk of the Council.

Stationery and Printing, Tipperary County Council.
March 28.—For all books, forms, circulars, stationery, and general printing that may be required for five years from 1st April, 1905, to 1st April, 1910. Mr. R. E. Bayly, Courthouse, Nenagh.

Steam Rolling, Trowbridge U.D.C.
April 10.—For scarifying and steam rolling for twelve months. The Chairman of the Finance Committee.

Stone, Pocklington R.D.C.
April 1.—For the supply of the best blue stone and slag for repairing the roads throughout the whole of their district for the current year. Mr. Thomas Robson, Clerk to the Council.

Stone, Helmsley R.D.C.
April 13.—For the supply of whinstone and slag for repairing their roads for twelve months. Mr. Robert Pearson, Clerk to the Council.

Stores and Repairs, Sowerby Bridge U.D.C.
March 27.—For various stores for the year ending March 31st, 1906, and for general road repairs and paving. Mr. R. W. Evans, Clerk to the Council, Commercial Bank Buildings, Halifax.

Stores, &c., Southampton Corporation.
March 27.—For the supply of above required in the borough engineer's department during a period of twelve months. Mr. R. R. Linthorne, Town Clerk.

Stores, Newcastle-upon-Tyne Corporation.
March 27. For the supply of various articles as above. Mr. W. V. Mulcaster, Town Clerk.

Straw, Yarmouth Guardians.
March 25.—For the supply of good, clean, dry straw. Mr. Frank Burton, Clerk to the Guardians.

Street Works, Southwick U.D.C.
March 27.—For sewering, levelling, paving, &c., in connection with above. Mr. J. E. Dell, Clerk to the Council.

Street Works, Cleethorpes U.D.C.
March 30.—For certain works of excavating, granite sett paving, &c., in connection with the making-up of Grant Street. Mr. Egbert Rushton, Borough Surveyor.

Street Works, Levenshulme U.D.C.
March 25.—For draining, paving, and channelling in connection with above. Mr. J. Ogden Hardicker, Northern Assurance Buildings, Albert Square, Manchester.

Swimming Baths, Goole U.D.C.
April 3.—For the various works required in erection of public swimming-baths. Mr. J. W. Johnson, Clerk to the Council.

Switchboards, Manchester Corporation.
April 4.—For the supply, delivery, and erection at their Dickinson Street Generating Station of high and low tension switchboards. Mr. William Henry Talbot, Town Clerk.

Tanks, &c., Kidwelly Borough Council.
April 3.—For constructing storage tanks and supplying and laying water mains. Mr. D. C. Edwards, Town Clerk, Stepney Street, Llanelly.

Tank, Rushworth U.D.C.
April 1.—For the construction of a concrete service tank (56,000 gallons) for the Council's waterworks. Mr. Joseph Walshaw, Crown Street Chambers, Halifax.

Tanks, Houghton-le-Spring U.D.C.
March 31.—For the construction of sewage tanks, &c. Mr. D. Miller, Clerk to the Council.

Tobacco, Doncaster Guardians.
March 25.—About 225lbs. of tobacco and snuff. Mr. F. E. Nicholson, Clerk to the Guardians.

Tools and Materials, Sudbury Corporation.
April 1.—For the supply of above during the twelve months ending 31st March, 1906. Mr. Walter E. Bush, Borough Engineer and Surveyor.

Uniforms, Woolwich Borough Council.
April 5.—For the supply of above for their officials. Mr. Arthur B. Bryceson, Town Clerk.

Water Main, Huntingdon U.D.C.
April 8.—For the laying of a 4-inch water main from High Street to the barracks, a distance of about 324 yards. Mr. E. Borissow, Borough Surveyor.

Waterworks, Cardiff Corporation.
April 6.—For the erection and building of a filter-house and meter-house at the "Heath" filter beds, near Cardiff. Mr. J. L. Wheatley, Town Clerk.

Waterworks, Bantry R.D.C.
April 11.—For the execution of works for carrying out the scheme for providing an additional supply of water for the town. Mr. Richard Croby, Clerk to the Council.

Works and Materials, Sunderland Corporation.
April 5.—For the supply of materials in various quantities and the execution of certain works. The Town Clerk.

Wiring, Salford Corporation.
March 31.—For the wiring of the new Council school, Liverpool Road, Seedley. Mr. L. C. Evans, Town Clerk.

Women's Shoes, Waterford Guardians.
March 29. For the supply of 100 pairs of above, to be made in Waterford. Mr. John Mackey, Clerk to the Guardians.

Appointments Vacant.

Art Master, Wolverhampton Corporation.
April 10.—As above and to take the general management of their school of art; salary £300 per annum, rising to £375. See advt. in this issue. Mr. Horatio Brevitt, Clerk to the Education Authority, Town Hall.

Assistant House and Drill Mistress, Poplar Guardians.
March 27.—For their schools, Forest Lane, Forest Gate; salary £30 per annum, rising to £35, with residential allowance. Mr. G. H. Lough, Clerk to the Guardians.

Assistant Inspector of Nuisances, Acton U.D.C.
April 3.—Candidates must not be more than 30 years of age; salary £100 per annum. See advt. in this issue. Mr. William Hodson, Clerk to the Council.

Assistant Markets Inspector, &c., Warrington Corporation.
March 27.—As above and as inspector of weights and measures; wages 35s. per week, with uniform provided. Mr. J. Lyon Whittle, Town Clerk.

Assistant Nurse, Banbury Guardians.
April 3.—At the workhouse infirmary; salary £21 a year, rising to £25. Mr. E. Lamley Fisher, Clerk to the Guardians.

Assistant Nurse, Bromley Guardians.
April 3.—For their workhouse at Farnborough, Kent; salary £23 per annum, rising to £28, with uniform, residence, rations, washing, and an optional allowance of £3 18s. per annum in lieu of beer. Mr. Edward Haslehurst, Clerk to the Guardians.

Assistant Nurse, Swindon Guardians.
March 28.—For their workhouse infirmary, Stratton, St. Margaret; salary £30 per annum, with apartments, rations, and indoor uniform. Mr. John P. Kirby, Clerk to the Guardians.

Assistant Nurse, Wincanton Guardians.
March 28.—For night duty at the workhouse infirmary; salary £22 a year, rising to £26. Mr. F. W. Lancaster, Clerk to the Guardians.

Assistant, Petworth Guardians.
March 27.—As female assistant in the workhouse; salary £18 per annum, inclusive of allowance for beer, with board, lodging, and washing. Mr. Ernest H. Staffurth, Clerk to the Guardians.

Assistant Relieving Officer, Sheffield Guardians.
March 28.—To act as above and as lunacy removal officer; salary £80 a year, rising to £100. Mr. A. E. Booker, Clerk to the Guardians.

Assistant Schoolmaster, Islington Guardians.
March 27,—Trained and certificated, for a mixed standard 5 and 6 school; salary £102, rising to £112. Head Master, St. Mary's Parish Schools, Hornsey Road, Holloway, N.

Assistant Schoolmistress, Monmouth County Council.
April 3.—For the Pontypool Pupil Teacher Centre; salary £90 per annum. Mr. A. B. Badger, M.A., B.Sc., County Council Offices, Newport.

Building Inspector, Coventry Corporation.
March 25.—Salary £130 a year. Mr. J. E. Swindlehurst.

Building Inspector, Tottenham U.D.C.
March 28.—Salary £180, rising to £200. Mr. Edward Crowne, Clerk to the Council.

Chief Auditor, Bloemfontein Corporation.
March 31.—Candidates must be chartered accountants, with municipal experience; salary £600 per annum. See advt. in this issue. Messrs. Davis and Soper, Agents of the Corporation of Bloemfontein, 54, St. Mary Axe, E.C.

Chief Clerk, Halifax Borough Council.
March 29.—As above in the Tramways Offices. Salary £2 5s. per week. See advt. in this issue. Mr. Keighley Walton, Town Clerk.

Chief of Fire Brigade, Bromley Town Council.
March 25. Salary £117 per annum, with quarters at fire station, coal, gas, and uniform. See advt. in last issue. Mr. Fred. H. Norman, Town Clerk, Municipal Offices.

Clerk, Greenwich Borough Council.
March 27.—In the Public Health Department; salary £100, rising to £137 per annum. See advt. in last issue. Mr. Francis Robinson, Town Clerk.

Clerk, Portsmouth Corporation.
April 4.—As above in Borough Treasurer's Department. Salary £80, rising to £120. See advt. in this issue. Mr. Arthur E. Bone, Borough Treasurer, Town Hall.

Clerk, Rutland County Council.
April 12.—As responsible Clerk in County Education Office. Salary £52 per annum. See advt. in this issue. Mr. E. W. Axtell Gardener, B.A., Secretary's Office, Oakham.

Clerk, Salop County Council.
March 27.—In the County Finance Department; salary £100 per annum. Mr. W. Baxter, Shire Hall, Shrewsbury.

Draughtsman, Nottingham Corporation.
March 31.—To assist in the drawing office under the direction of the water engineer. Mr. Samuel G. Johnson, Town Clerk.

Engineer, &c., Rotherham Corporation.
April 3.—As engineer and general manager of the gas works; salary £500 a year. Mr. W. J. Board, Town Clerk.

Female Night Attendant, West Ham Guardians.
March 29.—For their Convalescent Home at Margate; salary £20 per annum, together with uniform and the usual residential allowances. Mr. Fred. E. Hilleary, Clerk to the Guardians.

Housemaid, London County Council.
March 25.—At Rastell Avenue Home for Defective Girls; wages £16 a year, rising to £21. Mr. G. L. Gomme, Clerk of the Council, Victoria Embankment, W.C.

House Mother, Epsom Guardians.
March 28.—As working house mother for the Girls' Home at the Union; inclusive salary £27 10s., rising to £32. Mr. W. O. Reader, Clerk to the Guardians.

Inspectors, London County Council.
April 1.—Four divisional inspectors, salary £600 a year, rising to £800; one art inspector, salary £400 a year, rising to £500; one inspector of wood and metal work, salary £400, rising to £500; one inspector of women's technical classes, salary £300 a year, rising to £400. Mr. G. L. Gomme, Clerk of the Council, Spring Gardens, S.W.

Inspector of Weights and Measures, Preston Corporation.
March 27.—Wages 35s. per week. Mr. Henry Hamer, Town Clerk.

Male Night Attendant, West Ham Guardians.
March 29.—For the lunatic ward at the Infirmary, Leytonstone, as head male lunatic attendant for night duty; salary 28s. per week, with rations and uniform. Mr. Fred. E. Hilleary, Clerk to the Guardians.

Married Couple, Bangor Guardians.
March 29.—The services of a married couple at their Maesgarnedd Children's Home, Llanfair, P.G., the man to act as gardener and the woman as cook; joint salary £30 per annum, with rations, house fuel, and light. Mr. R. Benjamin Evans, Clerk to the Guardians.

Master and Matron, Evesham Guardians.
March 25.—Candidates to be husband and wife, under the age of 40 years; salaries, master £60, matron £40 a year, with board, washing, and furnished apartments. Mr. E. Wadams, Clerk to the Guardians.

Medical Officers, West Bromwich Guardians.
March 31. Two district medical officers, one for the Handsworth No. 1 District and the other for the Handsworth No. 2 District; salary £70 per annum. Mr. H. Ward, Clerk to the Guardians.

Medical Officer, Burnley Guardians.
March 29. As above for Padiham district; remuneration £45 per annum, together with the usual extra medical fees allowed by Order of the Local Government Board. Mr. J. S. Horn, Clerk to the Guardians.

Needlewoman, &c., London County Council.
March 28. As above and as boys' attendant at the Home for Little Boys, Clapham Park, S.W.; salary £20 a year, with board, lodging, &c. Mr. G. L. Gomme, Clerk of the Council, Spring Gardens, S.W.

Nurse, Larne Guardians.
March 29. A trained nurse for the workhouse fever hospital. Salary £40 a year, with rations and apartments. Mr. A. M. Wallace, Clerk to the Guardians.

Nurses, West Ham Guardians.
March 29. Two for the workhouse infirmary, Leytonstone; salary £25 per annum, with uniform, and the usual residential allowances in each case. Mr. Fred. E. Hilleary, Clerk to the Guardians, Leytonstone, N.E.

Porter, Weobley Guardians.
March 25. Salary £24 per annum, with rations (no beer), furnished apartments, and washing. Mr. F. H. Leathes, Clerk to the Guardians.

Probationer Nurses, Newport (Mon.) Guardians.
March 30.—For a course of three years' training at the workhouse infirmary; salary £5, rising to £15. Mr. Ithel Thomas, Clerk to the Guardians.

Probationer Nurses, Wolverhampton Guardians.
April 3. Three nurses as above at their workhouse infirmary; salary £10, rising to £15 a year, together with residence, rations, uniform, &c. Mr. Frank Harrison, Clerk to the Guardians.

Rating Clerk, Kensington Borough Council.
March 29. As assistant in the Borough Surveyor's department; commencing salary £110 per annum, rising to £150. See advt. in last issue. Mr. Wm. Chambers Leete, Town Clerk.

Rating Clerks, Kensington Borough Council.
April 5.—Two additional clerks in the rating section of the borough treasurer's department; commencing salary £70 per annum, rising to £100. See advt. in this issue. Mr. William Chambers Leete, Town Clerk.

Reformatory Staff, Yorkshire Joint Committee.
March 31.—For the new Inebriates' Reformatory, Cattal, near York. Kitchen Mistress, at £35 per annum, increasing to £45 per annum; Laundry Mistress, the like; two Charge Attendants, at £30 per annum each, increasing to £40 per annum; two Assistant Attendants, at £20 per annum, increasing to £30 per annum; one male Charge Attendant, at £50 per annum, increasing to £65 per annum; two male Assistant Attendants, at £35 per annum, increasing to £45 per annum; all the above to be supplied with rations, furnished rooms, laundry, and uniform, in addition to their salaries; one male Attendant, to be a gardener in charge of gardening operations, at £52 per annum, with house, light, and uniform; one Engineer, at 35s. per week; two Stokers, at 18s. per week. The Joint Clerks, Inebriates' Reformatory, Town Hall, Leeds.

Relieving Officer, Lexden Guardians.
March 25.—For the 3rd district of this Union; salary £90 a year. Mr. Chas. H. Thompson, Clerk to the Guardians.

Relieving Officer, &c., Easington Guardians.
Salary £80 per year as above, and as collector 12½ per cent. commission on amount collected. Mr. J. Morley Longden, Clerk to the Guardians.

Relieving Officers, Lambeth Guardians.
April 3.—Commencing salary £150 per annum. See advt. in this issue. Mr. R. Greenwood, Acting Clerk.

River Inspector, Preston Joint Committee.
March 27.—Salary £125, rising to £225, and travelling expenses. Mr. Harcourt E. Clare, County Offices, Preston.

Road Foreman, Birmingham City Council.
March 27. For the appointment of three in the City surveyor's department; wages 40s. per week, rising to 45s. Mr. John Price, City Engineer and Surveyor, The Council House.

Road Foreman, Walsall R.D.C.
April 4.—Applicants not to exceed 45 years of age. Salary 26s. per week. Mr. W. P. Young, District Surveyor, Rushall.

Road Surveyor, Wigtown County Council.
March 30. Salary £200. Mr. C. A. McLean, County Clerk.

Second Assistant Overseer, Marlow U.D.C.
March 27.—Salary £31 per annum. Mr. A. Stone, High Street.

Shorthand Clerk, Islington Borough Council.
As above in the Town Clerk's office; not over 20 years of age; salary £71 per annum. See advt. in this issue. Mr. William F. Dewey, Town Clerk.

Storekeeping Clerk, Greenwich Guardians.
March 27.—As above at the workhouse, Grove Park, Lee, S.E.; salary £40 per annum, with residence. Mr. Samuel Law, Clerk to the Guardians.

Superintendent Nurse, Belfast Guardians.
March 28.—For the auxiliary workhouse for consumptive patients. Salary £70 per annum, with rations and apartments. Mr. Joseph W. Robb, Clerk to the Guardians.

Surveyor, Worksop U.D.C.
April 5.—Salary £150 per annum; two road foremen employed; 54 miles of highways. Mr. George H. Featherston, Clerk of the Council.

Surveyor's Assistant, Westhoughton U.D.C.
March 25. Salary £85 per annum. Mr. Thomas Partington, Clerk to the Council.

Surveyor, &c., Ham U.D.C.
April 3. Mr. H. J. Mennings, Richmond, Surrey.

Veterinary Inspector, Surrey County Council.
April 5.—A duly qualified veterinary surgeon as above. Mr. T. W. Weeding, County Hall, Kingston-on-Thames.

Woman Attendant, Crickhowell Guardians.
March 25. As attendant on the sick and general assistant to the nurse at their workhouse infirmary; salary £15 per annum, rising to £20, with board, lodging, and washing in the workhouse. Mr. Irvine Blennerhassett, Clerk to the Guardians.

Assistant Surveyor and Building Inspector, Bexhill Corporation.
April 8.—Commencing salary £80 per annum. See advt. in this issue. Mr. T. E. Rodgers, Town Clerk.

TENDERS WANTED
(Continued.)

Coke, Metropolitan Asylums Board.
April 3.—For the supply of above to their several institutions. Mr. T. Duncombe Mann, Clerk to the Board, London, S.W.

Coal, Celbridge Guardians.
March 31.—For the supply of 250 tons, of Whitehaven coal, 50 tons of which must be delivered immediately on declaration of contract. Mr. F. Shortt, Clerk to the Guardians.

Granite Setts, Liversedge U.D.C.
April 7. For the supply of about 1,200 tons of 4in. by 5in. Norwegian granite setts. Mr. Frank Langley, Engineer and Surveyor, Council Offices.

Materials and Labour, Aylesbury U.D.C.
March 29.—For the supply of above for the year ending 31st March, 1906, to be delivered to the respective railway stations, canal wharf, sewage works, public baths, &c., to the satisfaction of the Surveyor to the Council. Mr. Percy A. Wright, Town Hall.

Road Materials, &c., Blackrock Guardians.
April 4.—For numerous supplies as above, and for Indian corn, timber, and blacksmith's work. Mr. R. Finlay Heron, Town Clerk.

Road Materials, Brighton Corporation.
April 3. For the supply of the necessary materials and laying of tar macadam on a portion of the Madeira Road, comprising about 21,000 superficial yards. See advt. in this issue. Mr. Hugo Talbot, Town Clerk.

Patents of the Week.

BY A CHARTERED PATENT AGENT.

Out of 622 patents applied for during the week ended March 18th the following are selected as being likely to be of interest to our readers:

5163. Withers, Griffin and Robinson. Improvements in electrical conduit fittings.
5165. Yarrow and Haworth. Improvements in chimney tops or ventilators.
5186. Emmett. Improvements in or relating to drains.
5202. Turner and Wunder. Steel skeleton construction for concrete buildings.
5205. Bradley and Mason. Improvements in and relating to trolleys for electric tramcars and the like.
5234. Nicholl. An improved waste water preventer for flushing purposes.
5273. Downward and Downward. Novel or improved insulator for electric traction street poles.
5319. Brittain. Improvements in ventilators for vehicles.
5362. Roberts. Improvements in holdfasts for brick walls.
5370. The British Thomson-Houston Company, Limited (General Electric Company, United States). Improvements in and relating to methods of insulating electric conductors.
5371. The British Thomson-Houston Company, Limited (General Electric Company, United States). Improvements in and relating to methods of and apparatus for insulating electrical conductors.
5373. Leech. Improvements in or relating to apparatus for distributing sand beneath the wheels of locomotive engines and other vehicles on railways and tramways.
5381. Stenlake. An improved hose supporter.
5403. Freise. Device for opening the slides and the like which close the shoots of dust carts.
5410. Doe. Improvements in portable closets or latrines.
5421. Freise. Arrangement for emptying the dust bins in a cart, without raising dust.
5469. Vinden. Improvements in apparatus for melting asphalt.
5471. Ewing. Improvements in the joints of stoneware and other pipes.
5503. Sutcliffe. Improvements in and appertaining to the securing of sheets of glass in street lamps and like metal frames.
5511. Smith. Improvements in flushing cisterns for water closets, latrines, and the like.
5514. Zellenka. Improvements in and relating to a process for the making of foundations and bond in laying stone blocks, bricks, and masonry.
5527. Bodin. Improved means for securing grids or covers on drain gulleys, sewer manholes, and the like.
5542. Bedingfield. Improvements in or relating to the construction of fire resisting floors, roofs, walls, partitions, and screens.
5581. Broussas. Improvements in or relating to trussed bricks, tiles, slabs, or the like, and to constructions formed thereof.
5599. Fawcett and Fawcett. Improved machine for making globular or semi-globular or analogous forms or shapes of cement, compo, or other semi-dry blocks or bodies.
5619. Thomlinson and Symons. Improvements relating to automatic fire extinguishing and fire-alarm apparatus.
5633. Jackson. Improvements in concrete floors and the like.
5665. Watler. New or improved device for enabling the points of tramways and the like to be actuated from the running car or such like vehicle.
5671. Marks (Alfred H. Diver, Canada). Improvements in fire-proof doors.
5691. Carr. Improved automatic dry seat for tramcars, omnibuses, parks, or any exposed position.
5770. Bony. Forcing appliance for silt and other excavated material.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
Limmer Asphalte Paving Co., Ltd.,
2. Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
Galloways Ltd.,
Manchester.

CARTOONS.
Specialists in Photo.-Litho,
Photo-Copies, and Sun Prints,
Vacher & Sons. Westminster.

CONDUITS.
The Conduit and Insulation Co., Ltd.,
Riverside Road,
Summers Town, S.W.

CONDUITS
Simplex Steel Conduit Co., Ltd.,
80, Digbeth, Birmingham.

CONDUIT.
The New Brotherton Tube Co., Ltd.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. Summerscales & Sons, Ltd.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
Horsfall Destructor Co., Ltd.,
Leeds.

DESTRUCTORS.
Meldrum Bros.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. Defries & Sons, Ltd.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
British Thomson-Houston Co., Ltd.,
Rugby.

ELECTRIC LIGHTING.
National Electric Construction Co.,
Ltd.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
British Thomson-Houston Co., Ltd.,
Rugby.

EXPANDED METAL.
New Expanded Metal Co.,
York Mansion, York Street,
Westminster.

FLOORING.
Acme Flooring & Paving Co, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GARDEN FURNITURE.
S. Clark & Co.,
Compton Works, Canonbury Road, N.

GAS AND WATER ENGINES.
James Milne and Son, Ltd.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
Preston Granite Concrete Co., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
Acme Flooring & Paving Co. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. Summerscales & Sons, Ltd.,
Phœnix Foundry, Keighley.

MANTLES.
Vivid Incandescent Mantle Co.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
Ward & Maconie,
15, Hanover Street, London, W.

PAVING.
Acme Flooring & Paving Co. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
Robt. J. Cook & Hammond, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

SANITARY FLOOR POLISH.
Ronuk, Limited,
Portslade, near Brighton.

STAIR TREADS.
Wm. Gooding,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
Ransomes, Sims & Jefferies, Ltd.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
Wm. Griffiths and Co., Ltd.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
The British L. M. Ericsson Mfg. Co., Ltd.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
The C.A.S. Punch & Ticket Co., Ltd.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
Ticket Punch & Register Company,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
The Hardy Patent Pick Company,
Sheffield.

TRAMWAYS.
Dick, Kerr & Co., Ltd.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. White & Co., Ltd.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
Miss Maude Gatliffe,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
James Keith & Blackman Co., Ltd.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
William Boby,
Salisbury House,
London Wall, London, E.C.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION

IS FAR IN EXCESS

OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—Manager, Municipal Journal 12, Salisbury Square, London.

PHENOZONE
SOAP

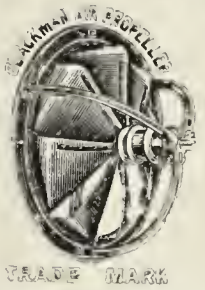
Has been proved to be the most efficient Cleanser for Mosaic and Tesselated Pavements, Marble Floors, Swimming and Slipper Baths, &c., after several years' use in numerous Public Baths, Electricity Stations and other Establishments.

"PHENOZONE SOAP," being in powder, is easy to use; it is also a strong, disinfectant.

SAMPLES FREE.

PHENOZONE SOAP CO.,
Wandsworth, London, S.W.

BLACKMAN
ELECTRIC FANS.



GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, Limd.

Surrey House, Victoria Embankment,
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

Bonds are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds Approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary. SHIRLEY FUSSELL.

WILLIAMSON
ASHTON-UNDER-LYNE,

Telephone 320.

FOR
TICKETS
AND
PUNCHES
FOR
TRAMWAYS, &c.

TICKET NIPPERS.

TICKETS, DATING MACHINES, AND ISSUING CASES
For Railways, Baths, &c.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM
Edited by ROBERT BLATCHFORD.

You should read **"THE CLARION"** for reliable information as to

MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century,

You Must Read **"THE CLARION."**

Send for specimen copy to **"THE CLARION"** Office

72, FLEET STREET, LONDON, E.C.

Demy 8vo, handsomely bound in cloth, gilt, price 3/6; post free, 3/11.

THE
MUNICIPAL 1905 YEAR BOOK

ENLARGED AND OFFICIALLY REVISED.

The only Municipal Work of Reference for all the Towns of the United Kingdom.

PRESS OPINIONS.

"There could be no more useful book of the kind."—*Westminster Gazette.*
"A very useful publication. . . . Every topic connected with local government is carefully and adequately dealt with."—*Daily Telegraph.*
"Has always been invaluable, but in its new form its usefulness is increased tenfold."—*Morning Leader.*
"Indispensable to everybody concerned in municipal work."—*Truth.*

LONDON: EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, FLEET STREET, E.C.

COOLEY'S PATENT

DOUBLE DOWEL-PINS
WILL REVOLUTIONISE
WOOD PAVING.

These DOWELS form a solid mass, effectively counteracting vibration, and thereby considerably increasing the life of the road.
For WOOD-BLOCK FLOORING this system of DOUBLE DOWELLING is recommended in all cases where the floors are subject to heavy traffic, such as in Factories, Warehouses, Public Halls, Schools, Sheds and Yards, &c.
FOR PARTICULARS APPLY—THE
WOOD-PAVING EXPANSION-CHANNEL & PIN CO.,
H. Cooley, C.E., *Managing Director.*
154, St. Saviour's Road East, LEICESTER.

ENGLISH INSTRUMENTS.
LATEST. CHEAPEST. BEST.
Some Important Specialities just placed on the market—
CALCULATING SLIDE RULE, by Prof. Perry. SCALE GRADED CURVES, by J. Harrison, M.I.M.E., A.M.I.C.E., Wh.Sc. THE VALOMETER, TRANSPARENT-EDGE T-SQUARES, COLOURS, PENCILS, etc., etc.
Just published, post free, New Edition of CATALOGUE, with Coloured Illustrations.
A. G. Thornton,
PRACTICAL MANUFACTURER,
Contractor to H.M. Government.
34, KING ST., WEST, MANCHESTER, ENG.

DRAWING INSTRUMENTS.

Special make, arrangement, and finish. The most practical and useful to be had, and quite different to what are usually sold.

TEMPERANCE PERMANENT
BUILDING SOCIETY,
4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS
For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.
EDWARD WOOD, Manager.

LIGHTNING CONDUCTORS
Supplied, Erected, & Tested. Chimney Shafts Restored, &c.
J. LEWIS,
5 and 6, Great Winchester Street, London, E.C
Telephone No. 3053 Central.

BIRKBECK BANK
ESTABLISHED 1851.
2½ per cent. INTEREST
allowed on Deposit Accounts Repayable on Demand.
2 per cent. INTEREST
allowed on Current Accounts on minimum monthly balances when not drawn below £100.
ADVANCES MADE.
STOCKS & SHARES BOUGHT & SOLD.
Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C.

PEARL ASSURANCE CO.,
LIMITED.
Chief Offices—London Bridge, City, E.C.

Annual Income	£1,382,000
Funds Increased during year 1904 by ...	£352,000
Claims Paid	£4,263,000

Additional representatives wanted.
P. J. FOLEY, Managing Director.

In the Press.
Price 1s. 6d. Post free 1s. 10d.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
LONDON: EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, E.C.

Printed and Published by Edward Lloyd, Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE MUNICIPAL JOURNAL

No. 635.—Vol. XIV. FRIDAY, MARCH 31, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. TWOPENCE.

CONTENTS.

	PAGE
L.C.C. NEW STEAMBOATS	289
MUNICIPAL LOANS—II.	290
URBAN COUNCILS ASSOCIATION	291
HOUSING PROGRESS	293
ASSOCIATION OF MUNICIPAL CORPORATIONS	294
MUNICIPAL TRADING (By Mr. E. R. Pickmere, M.A.)	295
NEWS IN BRIEF	296
PROGRESS IN EDUCATION ...	297
EDUCATIONAL NOTES	298
NOTES AND ANSWERS	299
NOTES AND COMMENTS:— Lord Avebury's "Remedies"; An Impossible Proposal: The Other "Remedies"; Ossett and the Power Company	303
"Take our Current"—and After?; "The Borrowings Bill"; The Chamber and the Shopkeeper ...	304
ROUND THE UNIONS—II.	305
CORRESPONDENCE:— "The Pauper Child" (By Mr. S. A. Lewis and "A Manager"); "Rating of Site Values" (By J. R. Major) ...	307
Borrowings Bill	301
ELECTRICITY SUPPLY	309
BOOKS	310
TRAMWAYS ANALYSES	311
LONDON HOUSING CONFERENCE	312
TRAMWAY TOPICS	313
THE SURVEYOR AND CONTRACTOR	317 &c.

Official Advertisements.

BOROUGH OF BEXHILL.

ASSISTANT SURVEYOR.

APPLICATIONS invited for position of ASSISTANT SURVEYOR and Inspector of New Buildings. Salary £80 per annum, rising by annual increments of £10 to £120. Applicants must have a thorough knowledge of surveying and levelling, and be neat and accurate draughtsmen.

Applications, together with copies of three testimonials, to be forwarded to me, on or before the 8th day of April, endorsed, "Assistant Surveyor."

Canvassing a disqualification.

T. E. RODGERS,
Town Clerk.

Town Hall, Bexhill,
29th March, 1905.

Official Advertisements.

CITY OF BIRMINGHAM.

TRAMWAYS INSPECTOR.

THE Corporation are about to reconstruct several miles of tramways, with a view to future working by electricity, and are prepared to receive applications for the appointment of TRAMWAYS INSPECTOR to act under the instructions of the Engineer.

Candidates must be from 25 to 45 years of age, and must have a thorough knowledge and practical experience of electric tramway track construction in all its branches. The work will have to be carried out so as not to interfere with the existing steam tramway service, and it will be an advantage if candidates have already had charge of works under such conditions. Candidates must be competent to accurately set out works upon the ground, and keep them correct in every particular during construction. The salary will be at the rate of about £4 per week, inclusive of all overtime and expenses. The appointment will be subject to one month's notice on either side.

Applications endorsed "Tramway Inspector," to be delivered at this office on or before the 12th day of April next.

Canvassing directly or indirectly will be a disqualification.

JOHN PRICE,
City Engineer and Surveyor.

Council House,
Birmingham,
28th March, 1905.

MUNICIPAL COUNCIL OF THE CITY OF SYDNEY, NEW SOUTH WALES.

REFUSE DESTRUCTOR AND FLAG-MAKING PLANT.

THE Municipal Council of the City of Sydney, New South Wales, invite Tenders for the Supply and Erection of a six-cell REFUSE DESTRUCTOR, and for a FLAG-MAKING PLANT, at Moore Park, within the City of Sydney, New South Wales.

Conditions of Contract, Specifications, and Tender Forms may be obtained on application to the Acting Agent-General for the State of New South Wales, Victoria Street, Westminster, S.W.

Tenders will be received up to Tuesday, 30th May, 1905, addressed to the Town Clerk, Town Hall, Sydney, New South Wales, endorsed, "Tenders for Destructor and Flag Plant."

THOMAS H. NESBITT,
Town Clerk's Room. Town Clerk.
Town Hall, Sydney,
9th February, 1905.

Official Advertisements.

FLEETWOOD URBAN DISTRICT COUNCIL.

SEWERAGE DIVERSION WORKS.

APPOINTMENT OF CAST IRON PIPE INSPECTOR.

THE Fleetwood Urban District Council invite applications for the APPOINTMENT of a fully qualified INSPECTOR OF CAST IRON PIPES, to test pipes which are to be made in the Staveley District.

Applications, which must be made only upon forms to be obtained from the undersigned, will be received at this office up to 2.0 o'clock p.m., on Saturday, the 8th day of April, 1905, endorsed, "Inspector of Pipes."

By order.
JOSEPH TILDSLEY,
Town Hall, Clerk and Accountant.
Fleetwood,
28th March, 1905.

FLEETWOOD URBAN DISTRICT COUNCIL.

SEWERAGE DIVERSION WORKS.

APPOINTMENT OF INSPECTOR OF WORKS.

THE Fleetwood Urban District Council invite applications for the APPOINTMENT of a fully qualified INSPECTOR OF WORKS, skilled in the construction of brick under the Engineer and Resident Engineer. and pipe sewers and sea outfalls, to act

Applications, which must be made only upon forms to be obtained from the undersigned, will be received at this office up to 2.0 o'clock p.m., on Saturday, the 8th day of April, 1905, endorsed, "Inspector of Works."

By order.
JOSEPH TILDSLEY,
Clerk and Accountant.

Town Hall,
Fleetwood,
28th March, 1905.

COUNTY BOROUGH OF CARDIFF.

TENDERS are invited for TWO ROAD MOTORS.

Specifications to be obtained from Mr. John Woosey (Superintendent, Health Department), Town Hall, Cardiff.

Sealed tenders, endorsed, "Road Motors," to be sent in to me on or before 18th April, 1905.

By order.
J. L. WHEATLEY,
Town Hall, Cardiff. Town Clerk.
28th March, 1905.

PROMOTION impossible without good Penmanship. Rapid tuition. Send stamp for Prospectus No. 18, N. BROADBENT (Prizeman and Medallist), Alston's College, Burnley.

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutelv PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

B.T.H. ENCLOSED ARC LAMPS.

The best Commercial Value possible. Attractive in appearance, and of the finest materials throughout. Globe breakages reduced to a minimum, as they are by far the easiest lamps to trim.

WRITE FOR PAMPHLET.

THE BRITISH THOMSON-HOUSTON CO., LTD.

Head Office and Works: RUGBY.

B T-H

In the Press.

Price 1s. 6d. Post free 1s. 10d.

THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.

ENCYCLOPÆDIC INFORMATION CONCERNING THE GREAT CITY IN A SMALL COMPASS.

INDISPENSABLE TO ALL INTERESTED IN PUBLIC AFFAIRS.

COMPREHENSIVE, CONCISE, AND UP-TO-DATE.

THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.
THE LONDON MANUAL, 1905.

LONDON: EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, E.C.

"I firmly believe that if the children were well fed our workhouses, gaols and asylums would soon be empty."
—Sir JOHN GORST, M.P.

ONE CUP
OF
Delicious
Plasmon Cocoa

Equals in nutriment ½-lb. Beef or Ten Cups of Ordinary Cocoa.
And is Absolutely Free from Chemicals.

Aids Digestion.
Braces the Nerves.
Invigorates the System.
In Tins, 5d., 9d., 1s. 4d., and 2s. 6d.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.
PRICE LIST POST FREE.
GREAT TURNSTILE, HOLBORN, LONDON, W.C.

THE BEST JUDGES OF CIGARS
Now obtain their supplies at
BENSON'S, 61, St. Paul's Churchyard, London.
Really good Foreign Cigars at 16s., 20s,, 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

COOLEY'S

PATENT

DOUBLE DOWEL-PINS
WILL REVOLUTIONISE
WOOD PAVING.

These DOWELS form a solid mass, effectively counteracting vibration, and thereby considerably increasing the life of the road.

For WOOD-BLOCK FLOORING this system of DOUBLE DOWELLING is recommended in all cases where the floors are subject to heavy traffic, such as in Factories, Warehouses, Public Halls, Schools, Sheds and Yards, &c.

FOR PARTICULARS APPLY—THE
WOOD-PAVING EXPANSION-CHANNEL & PIN CO.,
H. COOLEY, C.E., *Managing Director.*
154, St. Saviour's Road East, LEICESTER.

ENGLISH INSTRUMENTS.
LATEST. CHEAPEST. BEST.

Some Important Specialities just placed on the market—

CALCULATING SLIDE RULE, by Prof. Perry. SCALE GRADED CURVES, by J. Harrison, M.I.M.E., A.M.I.C.E., Wh.Sc. THE VALOMETER, TRANSPARENT-EDGE T-SQUARES, COLOURS, PENCILS, etc., etc.
Just published, post free, New Edition of CATALOGUE, with Coloured Illustrations.

A. G. Thornton,
PRACTICAL MANUFACTURER,
Contractor to H.M. Government.
34, KING ST., WEST,
MANCHESTER, ENG.

DRAWING INSTRUMENTS.

Special make, arrangement, and finish. The most practical and useful to be had, and quite different to what are usually sold.

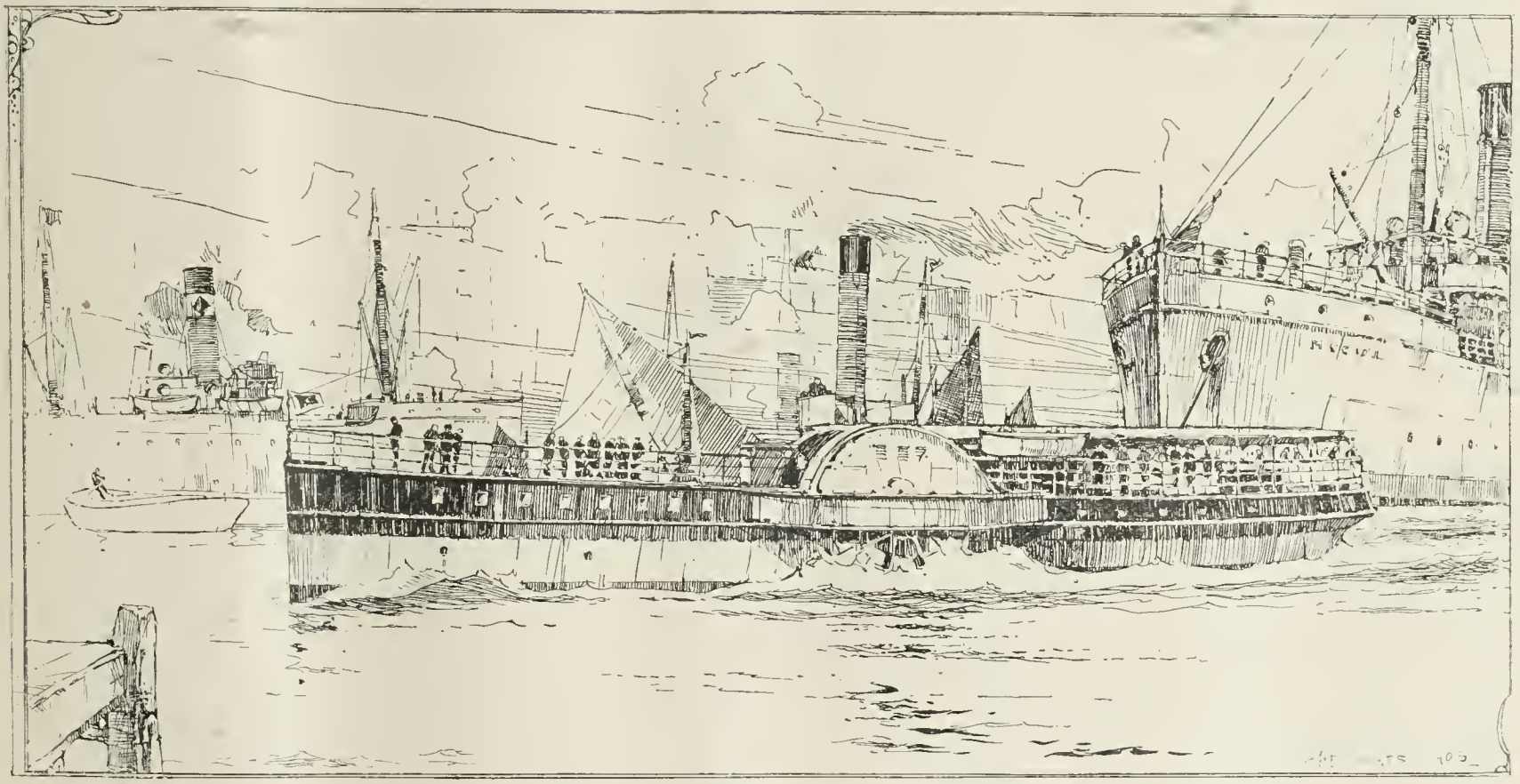
The
Municipal Journal.

No. 635.—Vol. XIV. MARCH 31, 1905

LONDON STEAMBOATS.

By the end of May the County Council's New Fleet of Steamers will be Plying on the Thames. A Big Scheme that has Taken Many Years of Persistent Effort to Accomplish. Will the Service Pay?

THE sketch on this page is that of one of the new steamboats which the London County Council is placing on the Thames. It is expected that the three contractors will by the specified time have completed their work, and that the boats will be running by the end of May. For many years past a company has provided an intermittent service, and the County Council had to go through one of the keenest struggles in its history before it finally succeeded in inducing Parliament to grant it the necessary powers, without which it could not proceed with the scheme that all London was demanding.



A SKETCH OF ONE OF THE LONDON COUNTY COUNCIL'S NEW STEAMBOATS.

A capital expenditure of about £300,000 is involved, and nearly a third of that amount will be needed every year to make the service pay. The fares have been prepared on a scale that is even lower than that in force on the tramways, and special facilities are offered to workmen, under which the latter will travel for a penny single, and twopence return, to and from any point between Hammersmith and London Bridge and London Bridge and Greenwich. The Council is handicapped in the way most municipalities desirous of launching out on new enterprises are usually handicapped. The boats cannot travel beyond the county boundary, which means that a large revenue from pleasure trips in the upper reaches of the river will be denied it. Here is a splendid opportunity, which will doubtless be taken full advantage of, for private enterprise to run an extension service from the Council's termini. The municipality will create the traffic from which a company will probably secure very considerable financial advantages. The Council will be wise to go to Parliament with another Bill, enabling it to complete the scheme it has commenced.

Thirty boats will constitute the new service, which will be a regular fifteen-minute one. The whole length of the route will occupy two and a half hours to traverse, but there will be express boats that will take the passenger from Hammersmith to the City in less than an hour and a quarter, which, as things go in London, is not bad travelling. Taken from one extreme to the other, boats will be available from five in the morning until a quarter past seven in the evening, and there are possibilities of "moonlight trips" in summer, that the committee concerned ought not to forget to take advantage of. In course of time, too, there should be opened up "circular routes" in connection with the tramways, upon which a pleasant hour or two could be spent.

The boats will be able to attain a speed of about twelve miles an hour regular running; each will accommodate between 400 and 500 passengers, and will seat from 180 to 200. The boats will be named after historical persons associated with the Thames, and in the cabins there will be tablets indicating who the persons were, and what they did. "Education, combined with pleasure," will apparently be the motto of the new service.

The list of names, which has been compiled by the Rivers Committee, with the assistance of Mr. John Burns, is an excellent one. It includes those of Whittington, Chaucer, King Alfred, Ben Jonson, Turner, Charles Lamb, Purcell, Gibbon, Carlyle, Pepys, Sloane, Boydell, and Brunel. The committee will allow dogs, perambulators, and ordinary bicycles on the boats, but motor-bicycles are tabooed. The Council is preparing a handbook about the Thames and its associations in connection with the scheme.

MUNICIPAL LOANS—II.

Pioneer Work in Raising Money by Stock. The History of Local Loans from the Investing Point of View. How the Public has Favoured Them, in Spite of the Lack of Facilities Sanctioned by the Legislature. Methods Formulated by the Central Authority.

[FROM A CORRESPONDENT.]

IT did not become the general rule for local authorities to raise loans by public tenders till after the first issue by the Metropolitan Board of Works in 1869. A careful examination of the publications through which it was usual to make such appeals reveals, however, one or two isolated attempts prior to that year, and it will be interesting to note them as being the pioneers of this method of procuring money. The first instance we have come across is that of the Northwood Burial Board, Isle of Wight, which in 1855 advertised for a five per cent. loan of £1,500. In 1857, the West Ham Local Board advertised for £1,588, and in the same year the colonial corporations of Melbourne and Geelong placed six per cent. bonds here amounting to £525,000 and £210,000 respectively. In 1858, Quebec also introduced six per cent. bonds on the London market, but the precise amount is not known; and in 1863 the Waltham Holy Cross Local Board advertised for £1,500. The change that has taken place in the last half-century in most things is suggested by nothing so much as by the modest loan of West Ham, which now, as a county borough, raises hundreds of thousands instead of hundreds. Waltham Holy Cross still exists as an urban district council; but the Northwood Burial Board is merged in the Cowes and Northwood Joint Burial Committee. In 1867, the City Corporation floated two loans—£465,000 in 4¾ per cent. bonds, and £500,000 in 4½ per cent. bonds—and in 1869 the first stock issue for £2,638,674 was made by the Metropolitan Board of Works. Thereafter, the raising of money by local authorities directly from investors became a common and steadily-increasing practice. The extent of that growth is shown by the following table, which gives approximately the amounts annually asked for or raised during the last thirty-six years:—

	£		£
1869 ...	2,638.674	1887 ...	45.236,237
1870 ...	1,400,000	1888 ...	19,559,446
1871 ...	934,305	1889 ...	17.806,507
1872 ...	4,437,000	1890 ...	4,747,764
1873 ...	3,801,754	1891 ...	9,989,590
1874 ...	5,844,200	1892 ...	13,284,693
1875 ...	3,791,700	1893 ...	12,091,019
1876 ...	2,485,700	1894 ...	14,081,166
1877 ...	3,984,872	1895 ...	15.809,794
1878 ...	9,092.723	1896 ...	9,936.465
1879 ...	10.703.892	1897 ...	11.970,374
1880 ...	7,648,966	1898 ...	13,500,835
1881 ...	8,854,419	1899 ...	12,731,012
1882 ...	8,309,221	1900 ...	31,496,170
1883 ...	6,369,752	1901 ...	21,200,375
1884 ...	10,698,890	1902 ...	29,153,263
1885 ...	9,562,652	1903 ...	27,070.030
1886 ...	9,761,413	1904 ...	65.848.688

Distribution of Loans.

This formidable table, with the detached issues prior to 1869, represents the colossal aggregate of £487,538,149, made up of 3,437 separate issues. A number of duplicate offers are included; but they form a very small proportion of the total. We must remind our readers, too, that our figures are not presented as being by any means complete, but we have taken pains to make them as exhaustive as possible, and they afford, as far as we are aware, a better idea of the way local bodies have come to rely on the public for their capital than any other statistics in existence. The distribution of the total of these loans amongst the various classes of local authorities is as under:—

	Amount.	Proportion of total.
	£	%
British Government (Local Loans Stock)	73,026,057 ...	15
County councils	40,656,725 ..	8½
Corporations	159,119,872 ...	32¾
Urban boards..	12,937,330 ...	2¾
Rural authorities	1,146.075 ...	¼
Boards of guardians	2,603,580 ...	½
Miscellaneous bodies	72,690,894 ...	14¾
Foreign and colonial authorities	125,127,616 ...	25¾
Total	487,538.149 ...	100

Another Surprising Feature.

To those unfamiliar with the subject, the most striking feature about the foregoing figures will, no doubt, be the large sum raised here by foreign and colonial municipal bodies. The part played by these authorities, indeed, in obtaining funds from the British public is much too important to be ignored, quite apart from the magnitude of the sums involved, and there can be little doubt that the example they set twenty and thirty years ago in floating bond issues here largely educated home corporations as to the expediency and facility of raising money in this and analagous ways. About forty per cent. of the municipal issues made here during the seventies were by authorities abroad, and the success which the great majority of them achieved was not lost on our own civic administrators. The widely-distributed character of these foreign and colonial loans is another surprising feature about them. Few people are probably aware how diversified are the nations whose cities have come to the United Kingdom for funds, and it is, therefore, worth while showing the extent of the diversity in detail:—

	£		£
Argentina ...	7,771,328	Natal	2,135,000
Austria	1,000,000	New South Wales	1,565,000
Belgium	4,000,000	New Zealand ...	7,577,200
Brazil	652,500	Norway	1,530,500
Bulgaria	638,380	Orange River Colony... ...	270,900
Canada ...	17,163,259	Queensland ...	121,250
Cape Colony ..	5,345,750	Roumania ...	571,360
Chili...	400,000	Straits Settlements	18,750
Denmark.. ...	2,206.886	Sweden	1,786,250
Egypt	512,800	Switzerland	240,000
Germany..	3,100,000	Tasmania	350,000
Holland	2,598.333	Transvaal	3,275,000
India	3,150,422	United States ...	27,801,708
Italy	14,621,300	Uruguay... ...	1,306,873
Japan	449,167	Victoria... ...	9,937,700
Mauritius. ...	140.000		
Mexico ...	2,800,000		

Local Authorities' First Loans.

The amount assignable to the Colonies is £51,080,231, and to foreign countries £74,047,385. The chief contributors to the large Canadian total are Toronto and Quebec, whilst Melbourne is principally responsible for the Victorian aggregate. The Indian borrowing has been mainly by Bombay, and Johannesburg entirely accounts for the Transvaal. The New Zealand total is more evenly distributed over the colony than that of any other country in the list. The leading borrowers from the United States have been New York, Chicago, and Boston; and the capitals of Argentina and Italy are chiefly responsible for the totals of those two nations. France is a notable absentee from the foreign group; but the French citizen is such a loyal supporter of the loans of his own authorities, both local and national, that a venture abroad is never thought of there.

It will be convenient to devote our next article to the stock issues proper of municipal authorities, and we may therefore conclude this section by noticing some interesting and outstanding features of local borrowings which will not fall to be dealt with under any other head. The total loans asked for by boards of guardians and rural sanitary authorities are relatively small, considering the great administrative importance of those bodies, especially the former; but the fact is easily accounted for by the small expenditure they are committed to on public works. The first Union we have come across as advertising for a loan is Eastbourne, which in 1878 asked for £2,500 at 4½ per cent.; and the first rural sanitary authorities making public appeals for money were South Shields and Whitehaven, the former inviting £1,000 at 4¼ per cent., and the latter £13,000 in 1879.

£26,000 for £5,000!

The issues of Local Loans stock by the Treasury, chiefly for the purpose of financing the Public Works Loans Board, form a comparatively recent departure, dating no further back than 1899, the first flotation in 1887 being merely for exchange purposes under the National Debt and Local Loans Act. The aggregate of £73,026,057 includes £36,526,057 so converted, and one duplicate issue. The amount offered to the public in the open market has been £26,500,000, and practically all of this has come out during the last five years, there being no offer after 1899 until 1900. The issues have always been on the tender, and not the fixed price system, and the minimum has ranged from 96½ to 103, giving an average of 98½. The total subscribed by the public has been £70,156,200, and the average price realised has ranged from £96 10s. 1d. to £103 7s. 10d., or a mean of £99 9s. 2d., a strikingly cheap rate. The Treasury has never suffered a real rebuff in connection with Local Loans stock, and at times, on the other hand, some remarkable successes have been secured, the most noted being in January, 1902, when £12,989,400 was put up for £2,000,000. The Public Works Loan Board finances authorities throughout the three kingdoms, though some of the money raised by Local Loans stock is also administered by the Commissioners of Public Works in Ireland. The funds advanced to local authorities by the latter Commissioners, however, form only about 76 per cent. of the grants they annually make, whereas 98½ per cent. of the money lent by the Board at Finsbury Pavement goes to elective bodies.

No account has been taken in these articles of the raising of loans on the security of annuities. Such a method has never been largely resorted to, and is now never entertained. It was chiefly adopted a quarter of a century or so ago in connection with the purchase of gas or water undertakings, and where any such annuities now exist efforts are periodically made to commute them. At times, their creation led to a very oppressive burdening of the community, and there is the historic case of one Kentish borough paying in that way over £26,000 for an original loan of only £5,000.

(To be concluded.)

Sir George Armytage, the chairman of the Lancashire and Yorkshire Railway Company, last week cut the first sod of the new sewerage works for the Fleetwood district. The scheme, which has been prepared by Mr. E. Frobisher, surveyor to the Fleetwood District Council, is estimated to cost £60,000, and calculated to meet the requirements of a population of 30,000. As the harbour authorities for Fleetwood, the joint railway companies have repeatedly lodged complaints of a nuisance being caused to their harbour by the discharge of sewage into it from the existing scheme. Against that, the local authorities have said that the sewer outfalls were sufficient and efficient before the companies extended the landing stages, and contended, therefore, that some part of the cost of the new scheme ought to be borne by them. In the end, the companies agreed to pay £7,500 towards it.

By reducing the proposed expenditure on the waterworks, the Stockton Town Council has been enabled to take 5d. off the 1s. 1d. by which it was thought it would be necessary to increase the rates.

A NOTABLE ASSOCIATION.

A Great and Growing Work Done by the Urban District Councils Association. Why Local Authorities should Join. Legal and Expert Advice by Return of Post, by Telephone, or by Telegraph. Bringing Pressure to Bear on the Government. A Glance at Recent Accomplishments.

WHAT does the Urban District Councils Association stand for? Its objects can be given chiefly under three headings:—

(a) To afford to the members and officers of urban district councils an opportunity of giving expression to their opinions when occasion requires, and to take action in matters affecting their interests.
(b) To offer to Parliament, the Local Government Board, and other bodies the collective experience of urban district councils.
(c) To take cognizance of Bills introduced into Parliament affecting urban district councils and the working of the laws affecting them, and to promote such measures as may from time to time be deemed advisable.

Some 500 of the 800 existing urban district councils are connected with the Association, which is now recognised by all the Government Departments. Let us first allude to some special instances of the work of the Executive Council, which is the backbone of the Association, and which consists of representatives from the following urban district councils:—Abram, Acton, Bilston, Brentford, Buxton, Edmonton, Farnworth, Finchley, Levenshulme, Llandudno, Matlock Bath, Northwich, Penrith, Royton, Shipley, Swinton and Pendlebury, Wallasey, and Wimbledon.

Attitude of the County Councils.

The Executive Council adopted a very decided attitude with regard to the Local Government (Transfer of Powers) Bill, and made very strong representations to the Local Government Board and to Parliament. The result of those representations was that a clause was inserted whereby a veto was placed in the hands of the local authorities, and the county councils were not left to do entirely as they liked. Not unnaturally this strong position attracted the attention of the larger authorities. A speaker, at a recent housing conference in London, exclaimed: "It is not right that you should give a local authority small powers, and then sneer at it." Perhaps it would be exaggeration to say that the county councils sneer at the urban district councils, but in times past they have often taken up a position of aloofness.

The county councils, consequently, were not altogether pleased, and at the annual meeting of the County Councils Association Sir John Hibbert made reference to the Act, and said he could not say a word in favour of it, because it was qualified with conditions which made it mere waste-paper, and he thought it hardly deserving of the trouble of the Government to pass it through Parliament, because the transfer of powers was to be conditional upon the consent of the smaller authorities, like district councils, parish councils, and other authorities of that kind. In that respect, if only in that respect, the Urban District Councils Association has done an exceedingly good work for the urban district and the country.

A Movement Checked.

Another stroke of good work recently accomplished was in regard to the report of the Departmental Committee on Highway Administration. The constitution of that committee clearly shows that the Association carries a great amount of weight with the Local Government Board, because, in the first place, the Association was requested to nominate a gentleman to sit upon that committee to represent the urban districts of the kingdom. That gentleman, Mr. Woodbridge, of Brentford, who was the chairman of the Executive Council, attended the meetings, and it was no doubt due very largely to his influence with the members of that committee that they did not report in favour of highway administration being placed more fully in the hands of county councils.

Legal Work.

Here is another example of good work! A question was raised not very long ago by the Gillingham Urban District Council with respect to building-line frontages. In that case, the council, after very full consideration, came to the decision that, as such matters depend to a very great extent on local circumstances, the council did not deem it advisable to take the proceedings suggested. This case is especially interesting, in view of the fact that Mr. R. H. S. Butterworth, solicitor and Parliamentary

Mr. J. OGDEN HARDICKER
(Chairman of the Executive Council).

Agent, who is now the secretary to the Association, has fought an important case on the same subject. The main point in the case was whether the conviction and fining of a defendant by magistrates exhausted all the remedies which the Act gave. The defendants brought forward a billiard-room six feet beyond the building-line of the adjoining property, and before the magistrates they were convicted and fined £20. They refused to pull down the building, and Mr. Butterworth applied to the Attorney-General for his fiat to proceed with an injunction. Their defence was that, having been convicted by the magistrates, all the remedies under the Act were exhausted. The Court held, however, that that was was not so, and a mandatory injunction was granted, with costs.

Another point raised upon which a unanimous decision was come to was with respect to appeals to Quarter Sessions against assessments. If an appeal is taken to the Quarter Sessions, and the guardians do not choose to turn up, the council is saddled with their own costs. The committee considered that where guardians or assessment committees withdraw from an appeal without reasonable notice they should be saddled with the costs of the other side.

Expert Assistance.

But perhaps the most valuable work of the Association is that done by what may be termed the Information Bureau. Each urban district council which belongs to the Association is provided with a set of query papers. The papers are printed as follows:—

190 . No. .

Urban District Councils Association.

QUERY submitted by the URBAN DISTRICT COUNCIL of

Sent day of 190

QUERY.

[NOTE.—The Secretary suggests that this Query Form should be forwarded in duplicate, when one copy will be returned with the Reply thereto.]

REPLY.

190 . No. .

These queries are replied to very promptly, where special urgency is required, by telephone or telegraph. This correspondence is a great boon. A member of the Association in difficulty about any question in regard to local government has a right, free of charge, to have his questions considered, and, if necessary, the opinion of eminent local government counsel. The number of cases to advise upon average about twenty a week. The replies go back, at the latest, in two posts, but they are subsequently published in the form of correspondence in the monthly Official Circular, which also deals with all cases affecting local government. In this highly valuable circular are published reports which do not find their way into the Law Reports.

Amongst the contents of the March number are:—Notes: Education Act—Important Answers to Questions in Parliament; Trials at Assizes; Cost of Hospital Beds; Executive Council—Next Meeting. Public Bills: Street Betting; Advertisements Regulation; Public Meetings (Facilities); Public Health Bill; Agricultural Education in Elementary Schools Bill; Public Libraries Act (Extension) Bill; Local Authorities (Transfer of Treasury Powers); Sunday Closing (Shops). Current Notes: New Streets—No. 2; Compensation—Measure of Damages; Sewer or Street Channel—Wilkinson v. Llandaff and Dinas Powis Rural District Council; Elections—The Unseating of a Disqualified Candidate—Invalid Nominations.

There are also reports of recent decisions in the law courts, as well as lengthy correspondence. We noticed it mentioned in regard to Local Authorities (Transfer of Treasury Powers) Bill, which is a measure to provide for the closing of shops, and the prohibition of street trading on Sunday, that the expression "local authority" has been amplified since the Bill was introduced last session, and has the same meaning as in the Shop Hours Act, 1904, so that the councils of urban districts having a population of 20,000 and upwards, according to the census of 1901, become the local authority under the Bill.

Points in Last Year's Work.

A further insight into the work of the Association is given in a report presented at the last annual meeting and conference, which took place in Buxton in July last. We have made the following excerpts:—"The past year has been one of great importance to all urban authorities, inasmuch as many of them have had to take over the duties and responsibilities of the administration of elementary education within their districts, or arrange with the county authorities with respect thereto. This has involved the Association in a large addition to its duties, and much of the secre-

taries' time has been occupied in advising the various councils who are members of the Association with regard to their education schemes, and generally as to bringing the Act into operation.

"Education authorities have, in most cases, up to the present, devoted almost the whole of their attention to elementary education, to the exclusion of higher education, but this question will now require serious consideration. Many urban district councils are levying a rate for the assistance of higher education, and in the case of those with a population of under 20,000, it is believed that the majority have accepted the view of the last conference, and have resolved that in their case a scheme for an education committee, under Part 2 of the Act, is not necessary.

"Last year the Council had to report that the Local Government Board had been conferring with the Association with regard to the form of accounts under the Education Act, and it now has pleasure in recording the fact that the Local Government Board, before issuing its Order with regard to the estimated produce of rates, submitted the draft Order to the Association, with the result that the Council was enabled to express its opinion thereon, and secure several alterations.

Educational Matters.

"Many other matters of importance under this Act have been dealt with by the council and the secretaries; among which may be mentioned the powers which should be placed in the hands of local committees by the larger local education authorities as to the payment of teachers' salaries, &c., and the expenses of the cleaning of voluntary schools. Almost every day queries are being received on questions relating to the construction of, and procedure under, the Act, and the thanks of the Association are due to the Board of Education for the assistance received from them in regard to many of these matters.

"The question of the shortage of money grants, and the difficulty of providing working balances under the Education Act, has been considered by the council. The Local Government were approached with reference to the question, and subsequently the Education (Borrowing) Bill was introduced by the President of the Board. This Bill became the Education (Provision of Working Balances) Act, which gives local education authorities power to borrow such sums as may be necessary to provide working balances.

"Strenuous efforts have been made by your Council to prevent the introduction of a clause in electric lighting Orders of local authorities, whereby the undertakers would be required in each year to so fix the charge or the supply of electrical energy that the revenue of the undertaking should not exceed the expenditure. These efforts have up to the present been successful.

An Injustice in Rating.

"The rating of cemeteries and reservoirs has also received careful consideration. With regard to the first of these, Mr. Lister (Finchley), prepared a comprehensive statement, showing the injustice of the present method of rating, and a resolution was passed in favour of cemeteries, not belonging to local authorities of the district in which they are situated, being rated at their full annual value. This statement and the resolution were communicated to the President of the Local Government Board. With regard to the rating of reservoirs, Mr. Baker attended on the President of the Local Government with a deputation of the local authorities, when the views of the association in favour of reservoirs being rated at their full annual value, were placed before him. Their views were favourably received, and Mr. Long suggested that some remedy would be found in the Assessment Bill, which he proposed to introduce, but that a more satisfactory way would be to introduce a clause in the proposed Bill for the amendment of the Public Health Act, when the whole question could be fully discussed in Parliament."

U.D.C.A. Annual Meetings.

These annual meetings take place alternately in London and the provinces. They occupy three days. The annual meeting proper takes place on the first day, and a conference on the two succeeding days. Papers are discussed on such subjects as:—Local Indebtedness; Work of the Education Act; Rating of Land Values; Housing of the Working Classes; Abolition of Private Slaughter-Houses; Compensation for Loss of Rateable Value; Paving of Private Streets, &c. The annual meeting will be held in July next in London.

These and many other advantages are gained by the payment of a subscription of a guinea and a half a year. The urban district councils have authority from the Local Government Board to pay this sum.

The following additions to the membership of the association during the last few months, show its growing strength:—Bettws-y-Coed (Carnarvon), Bispham with Norbreck (Lancashire), Bolton-on-Dearne (Yorkshire, W.R.), Burley-in-Wharfdale (Yorkshire, W.R.), Chislehurst (Kent), Compstall (Cheshire), Denton (Lancashire), Feltham (Middlesex), Fleet (Hampshire), Harpenden (Hertford), Herne Bay (Kent), Hollingworth (Cheshire), Leyton (Essex), Litherland (Lancashire), Newport Pagnell (Bucks), New Shoreham (Sussex), Pantcg (Monmouth), Stanley (Yorkshire, W.R.), Stroud (Gloucester), Teddington (Middlesex), Woodford (Essex), Yeardsley-cum-Whaley (Cheshire).

MR. R. H. S. BUTTERWORTH
(Secretary to the Association).

At the present time the association has a balance in hand of nearly £100.

Powerful Factor in Local Government.

Altogether, the association has become a very powerful factor in local government, and is to urban district councils what the Association of Municipal Corporations is to municipal boroughs.

The President of the Association is Lord Rosebery, and the following are Vice-Presidents:—Mr. Justice Gainsford Bruce; Sir John T. Brunner, M.P.; Mr. Joseph Howard, M.P.; Mr. F. S. Stevenson, M.P.; Mr. William Jones, M.P.; Mr. H. W. Worsley Taylor, K.C., M.P.; Sir Thomas Roe, M.P. The chairman of the executive council is Mr. J. Ogden Hardicker, solicitor and the clerk to the Levenshulme Urban District Council.

About six months ago the Association was fortunate enough to obtain the services as secretary of Mr. R. H. S. Butterworth. Mr. Butterworth is known to our readers as one of the champions of progress in local government. Before 1899 he was deputy town clerk and prosecuting counsel at Blackpool, and since that date, and previous to his taking the present appointment, was clerk to the Wimbledon Urban District Council. Further information in regard to the association, by those who have been interested in this necessarily incomplete survey of its great work, can be obtained from Mr. Butterworth, at the offices, Palace Chambers, Bridge Street, Westminster.

Dr. E. S. Page has just resigned the position of workhouse medical officer to the Solihull Board of Guardians, after acting in that capacity for nearly half a century.

GLASGOW TOWN CLERKSHIP.

Mr. Prescott Withdraws His Candidature.

We announced last week that Mr. R. M. Prescott, the Town Clerk of Fulham, had been recommended by the Special Committee of the Glasgow Corporation for the post of Town Clerk of Glasgow.

Yesterday (Thursday), Mr. Prescott withdrew from the candidature, owing to a strong local feeling that he was not a Scotchman or a Scotch lawyer.

The gentleman bracketed with Mr. Prescott was Mr. John Bowers, who, up to the present, has acted as interim town clerk.

The Corporation yesterday referred the whole matter back to the Committee for further consideration.

DEPOSIT LOANS.

THE RECENT REPORT OF THE BURY BOROUGH TREASURER.

An interesting correspondence has lately taken place between the Borough Treasurer of Bolton (Mr. G. Swainson) and the Borough Treasurer of Bury (Mr. R. W. Buxton), regarding the latter's report upon the Small Loans on Deposit System. Mr. Buxton's report, it will be remembered, was reproduced in full in our columns, and was subjected by us to certain criticisms.

The letter which Mr. Swainson wrote to Mr. Buxton contained the following statements:—

"In your report to your Finance Committee, which appears in the Municipal Journal of January 13th, as to the Inland Revenue claiming and our resisting the 2s. 6d. per cent. stamp duty on our deposits is, to say the least of it, a false statement. . .

"We have not heard a word from the Inland Revenue authorities on the matter. It has been purely a discussion between two or three corporations, and for you to presume an opinion with such slight knowledge, *that the Inland Revenue will succeed in its claim*, cannot be justified. The publication of your statement is so widespread (for all the anti-municipal journals are chuckling over it), that it is bound to do Bolton and the other boroughs serious injury.

"My official reply to your queries made no reference to this 2s. 6d. stamp duty. If treasurers are liable to this kind of thing, through giving confidential information to each other, we shall, some of us, have to reconsider our position when we are approached on these matters. It is quite certain we in Bolton are not liable to this 2s. 6d. stamp duty you refer to. We have power to take these deposits as equitable mortgages under Sec. 124 of our Improvement Act of 1872, and the duty on these is 1s. per cent."

In reply, Mr. Buxton sent a letter to Mr. Swainson, from which we take the following extracts:—

"I was not aware that the information with respect to the stamp duty was at all confidential, and it was conveyed to me not by yourself, but by others in the general course of conversation, &c. . . . My report was to my Finance Committee, and not to the world at large, but the Press having once gained possession, there was no holding them back.

"I regret very much having caused you or anyone else any annoyance, and doubly so if the statement is not correct.

"I felt in duty bound to draw my committee's attention to this point, and it is unfortunate that the Press have made use of it, and I trust there will not be that trouble you anticipate about it."

HOUSING PROGRESS.

The Official Monthly Record of the National Housing Reform Council for England and Wales. What May be Done to Further the Administration of Existing Powers. Projected Deputation to the New President of the Local Government Board. Preliminary Arrangements in Regard to the Forthcoming International Housing Congress at Liege. An Interesting Innovation.

THE conference held under the auspices of the Council on Saturday last, at the Passmore Edwards Settlement, to consider "The Better Planning of New Housing Areas in Greater London," will, it is expected, be fruitful in good results. A report of the proceedings appears in another column, and it is, therefore, only necessary to state here that the resolution passed at the conference will be sent to all the local authorities in the area covered by the conference, asking for the expression of their opinion on the subject. Arrangements will also probably be made to send a deputation to Mr. Gerald Balfour, the President of the Local Government Board, at an early date.

Guildford Housing and Small Holdings Conference.

The second in the present series of conferences will be held on Saturday, April 8, at the Ward-street Hall, Guildford, Surrey, to consider:—

1. The Housing Question in the Towns of Surrey, North Hampshire, and West Sussex.
2. Rural Housing and Small Holdings in the Villages of Surrey, North Hampshire, and West Sussex.

Invitations to attend the conference are being sent to:—

(a) County Councillors.

(b) Members of Borough Councils, Urban and Rural District Councils, in Surrey, North Hampshire, and West Sussex.

The Members of Parliament and the candidates for Parliament in the area of the conference are also being invited to attend, as well as a number of ladies and gentlemen interested in social reform.

Co-operative societies and other workmen's organisations are being asked to send representatives.

In order that the greater part of the time of the conference may be placed at the service of those attending, no special speakers have been arranged for.

To usefully concentrate the discussion, the following summary of an administrative Housing and Small Holdings policy has been specially prepared for the conference.

Administration of Existing Powers.

1. The active administration of the powers to compel either the repair and reconstruction of houses, or the destruction of insanitary houses, under Part II. of the Housing Act of 1890 and the Public Health Act, 1875.

2. The active administration of the powers—given under Part III. of the Housing Act, 1890, to borough councils, urban district councils, and rural district councils—to build cottages and to let them to municipal tenants.

3. The active administration of the new powers—given to borough councils, urban district councils, and rural district councils, under the Housing Amendment Act of 1900—to buy land and to let such land on lease for the building of workmen's cottages.

4. The active administration of the Small Holdings Act (on similar lines to those adopted by the South Lincolnshire (Holland) and the Norfolk County Councils) and the various allotment powers given under the Local Government Act, 1894.

New Bye-Laws.

5. The preparation by local authorities of new bye-laws (under Secs. 157 and 158 of the Public Health Act), to give greater freedom of choice in regard to building materials, and specially to secure the provision with each cottage of a greater provision of light and air-space, gardens, &c.

This will be submitted to the conference by the Chairman (Alderman Thompson) and the Secretary (Henry R. Aldridge).

Housing Conference for West Lancashire and North Cheshire.

A third conference will be held on Saturday, April 8, in the Friends' Meeting House, Hunter-street, Liverpool, to consider:—(a) The better administration of Part III. of the Housing Act, and (b) the Better Planning of New Housing Areas in West Lancashire and North Cheshire. Mr. John H. Barlow, secretary of the Bournville Village Trust, will be the principal speaker. The Liverpool Housing Association, which is affiliated to the National Council, is taking an active part in the organisation of the conference. Invitations are being sent to a large number of councillors, &c., &c., and it is anticipated that this conference will be one of the most successful of the series.

The International Housing Congress for 1905, Liege (Belgium), Aug. 7th to 10th.

The seventh international housing congress will be held at Liege (Belgium) from the 7th to 10th August next, in connection with the Universal and International Exhibition, for which leading statesmen and others in Belgium have been preparing for many years.

The previous international congresses have been held as follows:—Paris, 1889 and 1900; Antwerp, 1894; Bordeaux, 1895; Brussels, 1897; and Dusseldorf, 1902.

There is no need to point out the value and influence of these congresses, at which the most competent experts of each country have gathered together to give others the advantage of their study, their experience, and their talent.

There is reason to hope that the Liege Congress will be of even greater value than the preceding ones. The programme of subjects which will be submitted has been specially prepared, in view of the international character of the congress.

Reports of housing progress will be presented to the congress from many countries. Those responsible for the drafting of these reports are being specially asked to give prominence to the facts and statistics of actual housing effort, on the ground that, whilst questions of principle always possess a theoretical interest, fruitful discussion is only truly possible when the practical facts of experience are considered as well.

Co-operation of Specialists.

To this end, the committee of the congress is inviting the co-operation of specialists and experts in matters of health and housing, of men of science and men of business, of managers of industrial concerns and workmen, of philanthropists and heads of public departments. With the co-operation of these, the success of the congress should be assured.

In addition to the value of the proceedings of the conference itself, several circumstances will contribute towards giving a particular attraction to the 1905 congress.

The town of Liege, situated as it is on an admirable site at the confluence of two important rivers, is at the same time an important industrial centre. At Liege, a number of workmen's dwellings societies have their centre.

A special section (Class 106) of the great Exhibition is, moreover, to be devoted to an interesting collection of plans, maps, designs, books, photographs, and models illustrating the progress made in Belgium in regard to the better housing of the working classes.

Prizes for Special Competitions.

What is of even greater value, a series of prizes has been offered for a special competition in regard to the construction of workmen's dwellings—not in imitation materials, but in actual building materials. Twenty-five houses of different types are to be erected by building societies, industrial dwellings societies, &c., and these houses will be adopted as actual dwelling-houses after the exhibition has closed.

This exhibition—not of models, but of actual houses—will be an innovation of a most interesting character. It will give a practical illustration of what can be accomplished in regard to the erection of cheap workmen's dwellings.

The gardens of these houses will be planted and cultivated, in order to show all who visit the exhibition the value of cottage gardens and the advantage to workmen of allotments in which they may cultivate flowers and vegetables for home consumption.

In addition, a competition will be held in regard to the best types of furniture for workmen's homes. This competition will be organised on special lines and the exhibits will be placed in the workmen's homes above-mentioned.

During the two days immediately following the congress, the National Conference of Belgium Workmen's Dwellings' Societies will hold its second annual session. Those appointed to attend the congress are specially invited to stay to this conference, and will have a valuable opportunity of gaining a knowledge of the methods adopted in Belgium to increase the supply of workmen's dwellings, and especially those of the societies which take in hand the work of providing dwellings with the help of loans granted by the National Savings Banks.

Subjects To Be Discussed.

The following subjects will be considered by the International Congress:—

I.

The action of National and Local Authorities in regard to the Better Housing of the Working Classes, and specially the Housing of the Poorest Poor.

II.

The Effect of Local Taxes and Duties upon the Rents of Dwellings.

III.

The Laws regarding Sanitary Inspection in Various Countries. The Power of Individual Citizens to Secure the Better Administration of the Law.

IV.

The Better Planning of all New Housing Areas. Building on Cleared Sites. Suburban Developments. Garden Cities.

V.

Consideration of the Housing Question in Relation to Public Hygiene, Public Economy, and Social Life.

VI.

Methods by which the More Artistic Designing of Workmen's Dwellings can be Secured without a Great Increase in the Cost.

VII.

The Value of Workmen's Gardens and Allotments. Legislation in Various Countries. The Results obtained therefrom.

The President of the Congress is Mons. O. Lepreux, Director-General of the National Savings Bank of Belgium; the Secretary is Dr. E. Mahaim, Professor of Political Economy to the University of Liege. The Ministers of Finance, of Labour, and of Agriculture are honorary presidents of the congress; and the Governor of the Province of Liege and the Mayor of Liege are vice-presidents.

The international committee for the organisation of the congress is represented in this country by Mr. Henry R. Aldridge (Secretary, National Housing Reform Council), and any information regarding the detailed arrangements for the congress will be gladly sent by post to any correspondent interested in the housing question, on application to him, at 432, West Strand, London, W.C.

HENRY R. ALDRIDGE.

TO-MORROW'S PARLIAMENT.

To-night (Friday) and To-morrow (Saturday) the Annual Meetings of the Association of Municipal Corporations are Taking Place in London. Points from the Report of the Council. The Association's Legislative Action and its Results. Companies and the Municipal Franchise.

As we announced in last week's issue, the annual banquet of the Association of Municipal Corporations is taking place to-night (Friday), and to-morrow (Saturday), the annual meeting will be held at the Guildhall of the City of London.

The thirty-first report of the council commences with an enumeration of the various Bills affecting municipal corporations that were introduced into Parliament during the session of 1904. Of these the measures receiving the Royal Assent were:—Education (Local Authority Default), Expiring Laws Continuance, Licensing, London Electric Lighting Areas, Prevention of Cruelty to Children, Public Health, Savings Banks, Shop Hours, Weights and Measures.

Status of the L.G.B.

It will be recollected that a Departmental Committee, with Lord Jersey as chairman, was appointed to consider the position and duties of the Board of Trade and the Local Government Board, and whether, and if so what, alterations should be made in the constitution and status of those offices, and also whether in the interest of administrative efficiency any rearrangement of duties between those and other government departments was necessary. This was deemed a fitting opportunity to endeavour to raise the status of the President of the Local Government Board, and accordingly the Council passed a resolution that, in view of the great development and increase in the amount and importance of the duties now discharged by the Local Government Board, it was of urgent importance in the interest of local government of the country that the status of that department should be raised to that of a Secretary of State. Sir Albert Rollit gave evidence before the committee, and the town clerk of Liverpool (Mr. Pickmere), and the town clerk of Leeds (Mr. Fox), furnished written statements in support of the views of the association. The Council is pleased to observe, by the King's speech, that proposals will be laid before Parliament for improving the status of the Local Government Board and the Board of Trade.

Compulsory Purchase of Lands.

In regard to the increasingly heavy cost of acquiring lands by compulsion, for public purposes, the Council has made a representation to the Local Government Board, urging the promotion of legislation for the following purposes:—

1. To enable local authorities to acquire lands for public purposes approved by Parliament, or the Department, on the terms of paying therefor the fair market value thereof, for the time being.
2. To provide that the amount of the compensation shall be determined by a single arbitrator to be agreed upon by the parties, or failing agreement, to be appointed by the Board of Trade upon the application of either of the parties.
3. That in determining the amount of compensation to be paid, regard shall be had to the extent to which other lands of the same owner may be benefited by the execution of the public purposes in connection with which the lands are to be acquired.
4. That any person claiming compensation shall be liable to pay his own costs of the proceedings and half the arbitrator's costs if he fails to send in adequate particulars of his claim within a specified time after the service of the notice to treat.
5. To give to the Local Government Board power to insert in Provisional Orders made by them under Sec. 176 of the Public Health Act, 1875, provisions in the terms of the above recommendations, and also similar provisions to those commonly inserted in private Bills for the acquisition of lands; and for—
   (a) Requiring owners of specified properties to sell portions thereof where such portions can be severed from the remainder without material detriment thereto; and—
   (b) To the effect that no sum shall be awarded in respect of alterations made, or interests created, after a specified date, if the object of making the alteration or creating the interest was to obtain or increase compensation.

Education Act.

The Council has, in accordance with the resolution, confirmed at the last annual meeting of the association, appointed a committee to deal with the numerous and important questions which are constantly arising in connection with the administration of the Education Act, 1902. The committee consists of representatives from ten county boroughs, ten non-county boroughs, and one metropolitan borough, and the towns represented on the committee for the current year are Birmingham, Blackburn, Bournemouth, Bradford, Carlisle, Crewe, Doncaster, Dover, Eastbourne, Harrogate, Hull, Leeds, Liverpool, Manchester, Nelson, Nottingham, Scarborough, Southport, Winchester, Wolverhampton, and Woolwich, and the president and vice-president of the association. Alderman Oulton, J.P., of Liverpool, has been appointed the chairman of the Education Committee.

The report goes on to refer to the action taken by the association in regard to the Supply of Electricity Bill, introduced by the Government into the House of Lords last Session, and summarises the amendments the association was instrumental in securing. It also alludes to the Private Procedure Legislation (Wales) Bill, in regard to which Mr. Horatio Brevitt, the Town Clerk of Wolverhampton, gave evidence before the Select Committee. The association further took action concerning the Tuberculosis (Animals) Compensation Bill.

Municipal Franchise and Qualification.

The report contains the following reference to the Bill, withdrawn by Sir Albert Rollit, M.P., in the House of Commons a few weeks ago:—

"A Bill was introduced in the Session of 1904 by the President of the Association, providing that where a company are the occupiers of any tenement of the annual value of not less than £10, a duly appointed officer of the company should be entitled to be entered in the Local Government Register of Electors, and to vote, except at a Parliamentary election, and be qualified for election as if he were the occupier. The Bill did not, unfortunately, pass, but some such alteration in the law is particularly necessary, having regard to the extent to which of late the private trading concerns have been converted into limited liability companies. The contributions to the rates from the companies amount in many cases to a large proportion of the total sum received, and it is only just that they should be entitled to representation and votes. The president has accordingly been requested to re-introduce his Bill this Session."

"Another amendment of the law in regard to the residential qualification of members of the council is much needed. The facilities for travelling have greatly improved since 1882, when the limit of fifteen miles was prescribed, and at a meeting of the council held in November last, a resolution was passed to the effect, that in the opinion of the council the residential qualification of the members of the council under the Municipal Corporations Act, 1882, should be extended from fifteen miles to a distance of fifty miles, and that the attention of the Home Office be directed thereto, with the view of having the law so amended. The resolution has accordingly been brought to the attention of the Home Office, and it is hoped that they will see their way to promote legislation on the subject."

Sewers and Drains.

It is with regret that the Council has to state that no legislation dealing with this subject was attempted by Government during the past Session. Two important cases have somewhat cleared the ground on the subject; these cases are "Thompson v. the Corporation of Eccles," and "Haedicke v. Friern Barnet Urban District Council"; but the difficulties which are still experienced by local authorities in dealing with sewers and drains are such as to demand the early attention of Parliament, and can only be properly dealt with by a Government measure. Accordingly, on the 2nd of June last, the following resolution was passed by the Law Committee, and communicated to the Government (namely):—"That the attention of the Local Government Board be directed to the observations of the late Chief Justice Lord Russell of Killowen and of His Majesty's Judges in recent cases as to the unsatisfactory condition of the law with regard to sewers and drains, and that the Board be respectfully requested to introduce a Bill dealing with the question at the earliest possible date."

Various Matters.

Numerous other subjects have engaged the attention of the Council, and particularly the following:—Motor Car Act, 1903; Retrospective Rating; Local Government Legislation; Trust Investment; Street Betting; Trade Effluent; Police Superannuation; Income Tax; Poor Rate; Tramways; Loss of Rateable Value; Unsound Meat; Municipal Charities; Electrical Fittings; Valuation Bill; Unemployed; Stamp Act.

Affairs of the Association.

The Council desires again to record its obligation to the President (Sir Albert Kaye Rollit, M.P.), and the Vice-President (Sir James Woodhouse, M.P.), for their continued and valuable services in the affairs of the association. The number of towns, members of the association, still remains the same as last year, namely, 294, being the highest that there has ever been. The Council expresses a hope that the members of the association will use their influence to induce the remaining outstanding corporations to join the association.

The financial statement shows that the association has a balance at the bank and in hand of £600 11s. 8d. The subscriptions received for last year amounted to £1,386.

A full report of to-night's and to-morrow's proceedings will appear in next week's issue of the Municipal Journal.

The Education Act of 1902 having thrown upon the county councils the responsibility of providing for the instruction of the epileptic children in their respective districts, many of them have at present under consideration the question as to how such provision can best be made. The Board of Education has recently certified the homes and schools for epileptics at Lingfield, Surrey, and Starnthwaite, Westmoreland, belonging to the Christian Social Service Union, in order that school authorities may be able to send their epileptics to these schools; an arrangement by which county councils may avoid the great expense of providing their own homes for these afflicted children. At present there are vacancies both at Lingfield and Starnthwaite, owing to the opening of additional homes. Further extensions are contemplated.

MUNICIPAL TRADING.*—II.

Clear and Lucid Survey of the Present Position of Municipal Activity: Gas Supply, Electric Lighting, Tramways. What has been Done and what may be Done for the Acquisition of these Undertakings. Ths Attitude of Parliament in the Past, and Present Day Legislation. Very Few Undertakings of a Commercial Character on which Municipalities may Enter, and these are in the Nature of Necessities.

[*By Mr. EDWARD R. PICKMERE, M.A., Town Clerk of Liverpool.*]

MUNICIPAL corporations were first permitted to establish electric lighting and power undertakings in the year 1882, and the Act provides that powers may be granted to a local authority authorising it to supply electricity in any area, although the same or some part thereof may not be included within its own district. The powers are obtained by a provisional order granted by the Board of Trade. In many cases, however, electrical undertakings had been established by companies previous to the Act of 1882, and many of these undertakings were purchased by local authorities. By the Act of 1882 a period of twenty-one years was granted to electric light companies before they could be purchased by the local authorities, but this period was extended by the Act of 1888 from twenty-one years to forty-two years, so that the effect of this is that unless the Corporation obtains by a Private Bill or Provisional Order power to shorten the period (and it is sometimes done by agreement with the company), the Corporation cannot compulsorily purchase the undertaking of the company until a period of forty-two years from the date of the passing of the Act confirming the Provisional Order conferring the powers upon the company. The Corporation has to give notice in writing requiring the company to sell within six months after the expiration of a period of forty-two years, unless a shorter period be agreed upon, and within six months after the expiration of every subsequent period of ten years, and thereupon the company is obliged to sell its undertaking to the Corporation upon terms of the Corporation paying the then value of all lands, buildings, works, materials, and plant, at their market value, according to their then condition.

In some cases Parliament has allowed corporations to supply electricity both for light or energy outside their districts, and this has been done either by the powers being given directly or by the transfer of orders which have been granted to companies, and sometimes corporations have obtained transfers of powers from adjoining local authorities.

In granting orders for electric supply, it has been the custom of the Board of Trade to give preference to local authorities over companies, and although Parliament has been known to refuse to confirm an order to enable a local authority to compete with an existing company, I do not know if there is any instance of a company, where a municipality has obtained an order, being allowed to enter into competition with the municipality. There have been instances where local authorities which have established electricity undertakings have been empowered by Act of Parliament to supply energy in bulk to other bodies which are authorised to supply.

Tramways.

With regard to the working of tramways by municipalities, the history is somewhat singular. Probably one of the earliest of the special Tramways Acts was the Liverpool Tramways Act of 1868, which was promoted by the company for the purpose of working tramways in Liverpool, but it contained a provision that, if after eleven years the Corporation of Liverpool desired to purchase the undertaking, and sought powers to do so from Parliament, the company would not oppose, but would sell the undertaking on terms to be agreed by arbitration. The Tramways Act of 1870 was passed for the purpose of facilitating the construction of tramways and for regulating the working of the same, and it established a system of authorising tramways by provisional orders made by the Board of Trade, and confirmed by Parliament. The Act of 1870 provides that provisional orders may be obtained (1) by the local authority of the district, or (2) by any company or person, with the consent of the local authority and of the urban authority also when it is a separate body. Although this Act enabled local authorities to lay tramways, it did not specially allow them to work the same by running cars upon them, but on the contrary it contains the following negative provision: "Nothing in this Act contained shall authorise any local authority to place or run carriages upon such tramways, and to demand and take tolls and charges in respect of the use of such carriages." It gives a local authority power either to lease the tramways to be worked by a company or person, or to leave the tramways open to be used by the public on payment of tolls; but the latter alternative has never, so far as I am aware, been put into force.

In 1879 a Select Committee of the House of Lords was appointed to inquire into the regulations which it might be desired to impose in relation to the construction and use of tramways, and the Committee reported that it was strongly of opinion that "wherever it is possible it is most desirable that tramways, especially in towns, should be constructed and maintained, though not worked, by the local authorities."

The Act of 1870 enables the local authority to acquire the tramway of a company if the company discontinues working the tramway, or on the insolvency of the company; or it may, at the end of twenty-one years, purchase it compulsorily, or at any time by agreement. There is no doubt that by inserting Clause 19 in the Act it was the intention of Parliament to prevent local authorities from becoming omnibus companies, but it must be noted that the section is merely negative, and is not a direct prohibition of working by the local authority. Many local authorities have since obtained powers, either by special Act or Provisional Order, not only to construct, but also to work, tramways, and it has not been thought necessary in any of these cases to repeal Section 19. Moreover, in many instances local authorities have purchased the undertakings, as was done in Liverpool, of companies already working tramways, and in doing so they took over all the rights, privileges, and obligations of the company, and therefore the right to work the tramways. The practice, consequently, for many years was for the tramways promoted by local authorities to be leased to companies, but by degrees the corporations began to purchase the undertakings of the companies, and in some cases they obtained special powers to work their own tramways, especially when they were able to prove to Parliament that they could not get satisfactory tenants for their lines. It should be mentioned that the Houses of Parliament had passed standing orders which prevented corporations from obtaining powers to work their own tramways, but as time went on the applications from local authorities for special powers for this purpose were so numerous that the standing order was altered so as to enable a Committee on a Bill to allow local authorities to work their own tramways if it was satisfactorily proved that the local authorities were unable to lease their tramways at an adequate rent. This was done by means of a licence granted by the Board of Trade. However, in the year 1896 the restriction in the standing order was dropped, and since that year local authorities have readily obtained, both by Bill and Provisional Order, the power of working their tramways as freely as if they were a company, so far as their own district is concerned.

Tramways Outside Boundaries.

The next question we have to consider is the powers of local authorities to construct tramways outside their own boundaries, and the Board of Trade has always held that it has no powers under the Act of 1870 to authorise a local authority to carry out any tramway works outside its own boundaries. The Act does contain a power to local authorities to promote jointly an order authorising them to construct tramways, but I believe that this has only been put into force in one or two cases. If, therefore, local authorities desire to establish a tramway system outside their own boundaries they have to apply to Parliament by Private Bill for the purpose. Owing to the overflow of the population of large towns into the adjoining districts, it became almost an absolute necessity that the tramway system of the towns should be carried into those districts, and in 1899 Parliament began to confer on various local authorities powers of purchase and construction—exercisable outside their own districts, and made a new standing order, which provided that tramways in one district might be authorised to be constructed, acquired, taken on lease, or worked by the local authority of any district if the projected lines were continuous with the lines belonging to the local authority promoting the Bill; and there are at the present time many local authorities running their cars over the lines which have been laid in adjoining districts; and the case of the Liverpool cars running on the Bootle lines may be cited as an instance. The establishment of the electric traction system has further conduced to and simplified the running of cars by one authority over the lines laid by, and in the area of, another authority. In other cases the Board of Trade has given local authorities power to enter into working agreements with one another or with companies for the purpose of securing economical construction, and working, and for better traffic facilities.

(To be concluded.)

* A Lecture delivered at the Municipal Offices, Liverpool, for the Liverpool Board of Legal Studies.

In the presence of a large gathering, Mr. Henry Hibbert, deputy chairman of the Bradford Electricity Committee, on Friday started a new engine and generator which have been installed at the Corporation Electricity Works in Valley Road. There are now four 1,000 k.w. engines laid down at the works, and the new one, the total cost of which has been £12,542, is of massive construction. The weight of the flywheel is 75 tons, and that of the generator about 65 tons. The latter has been so constructed that it can be used for supplying current either for lighting purposes or for tramway traction. After the ceremony at the works, the company adjourned to the Great Northern Victoria Hotel, where luncheon was served. A number of complimentary speeches were delivered, and Alderman G. H. Robinson (chairman of the Electricity Committee), in reply to a toast, said that the electricity undertaking of the Corporation had been very successful, and the department was in as good a position as that of any other municipality in the kingdom. He claimed that if it were a private company it would pay ten per cent. on the capital outlay. He considered it to be very satisfactory that on a capital of £537,000 there had been allowed for depreciation £42,605, leaving unappropriated profits amounting to £10,000.

NEWS IN BRIEF.

Summary of the Principal Events of the Week.

owling Green for Rhyl.

Another addition was made to the attractions of Rhyl on Saturday afternoon, when a splendid bowling-green, just laid down by the Urban District Council, was opened. The green, which is nearly a hundred square yards in area, occupies a picturesque situation adjacent to the Marine Lake. The opening ceremony was performed by Councillor J. H. Ellis, chairman of the Roads and Improvements Committee.

Blackpool Mayor's "Salary."

In view of the expense to which the Mayor of Blackpool is likely to be put this year in connection with the festivities at the opening of the new promenade, it is suggested that an allowance should be made by the Corporation. In Coronation year the Mayor was allowed £2,000.

Swansea Market Gutted.

The central portion of Swansea Market, a handsome structure, which cost £30,000 to erect, was destroyed by fire on Sunday. The contents of thirty stalls were also completely destroyed. The damage is estimated at £10,000.

Free Library for Darwen.

At a meeting of the General Purposes Committee of the Darwen Corporation on Friday night, it was unanimously decided to accept a gift of £8,000 from Mr. Carnegie for a new free library for the borough, on the usual conditions.

Dewsbury's High Rates.

At a special meeting of the Dewsbury Borough Council last week, estimates were approved for rates which will bring the total up to 9s. 4d. in the pound. The expenses of the small-pox epidemic alone up to this month have been £8,573. A letter was read from the Local Government Board, stating that the duty of ascertaining upon whom rested the responsibility of the conditions set forth in the Government inspector's report attached to the town council. The Board refused to undertake an inquiry with a view to apportion responsibility.

Dumfries Boundaries.

At a meeting of Dumfries Town Council on Thursday, the Provost submitted a motion to make application to the Sheriff for an order extending the boundaries of the burgh so as to include the Noblehill, Gasstown, Westfield, and Edinburgh Road areas, which have a rateable annual value of £7,514. The assent of the County Council and District Committee had been obtained, and the motion was adopted.

Glasgow's Hint from America.

The Glasgow Corporation has ordered an inquiry to be made as to the advisability of securing powers similar to those in force in many parts of America for the reformation of criminals. The system, which is one of official guardianship, and was first adopted some years ago by the State of Massachusetts, provides for the appointment of a skilled officer, outside the police force, who is charged with the duty of investigating the antecedents of a person charged under the First Offenders Act; and in the event of the offender's discharge the officer acts as his official guardian, gives him advice, and generally supervises him, with a view to preventing his relapse into criminal ways. The system is now in force practically throughout the United States. Take care of the young, and the old will take care of themselves! The whole tendency is to save the incipient criminal.

Sheffield's Rateable Value.

The increased yield of the Sheffield rates, owing to the development of the city, amounts to over £42,000 per annum.

Hammersmith Profits Reduce Rates.

The Hammersmith Borough Council has decided to increase the local rates by one penny in the pound, and to appropriate £3,000 of the profits made during the year from the municipal electric light supply to the reduction of the general estimates. The present indebtedness of the borough amounts to more than £351,000.

Manchester Electricity Action.

On Wednesday, the Electricity Committee of the Manchester Corporation held a special meeting to consider its position in view of the decision given against the Corporation last week in the action for damages caused by an explosion, in which it was held that a nuisance had been caused. The Chairman (Mr. George Howarth) stated at the close of the meeting that the committee had carefully considered the question and counsel's opinions, and had decided to give notice of appeal.

Municipal Emigration.

When the distress from unemployment in Bradford was very acute, the local authorities arranged to send a number of unemployed to Canada. Over 400 applications were received, and on Friday thirty-three emigrants, the cost of whose passage will be paid out of the rates, left Bradford for Glasgow, where they embark for Canada. In the afternoon, the Mayor publicly took leave of the emigrants in the Town Hall, and they were presented with numerous gifts. The party consisted of nine single men, and nine married men with their wives and six children.

Otley Waterworks Undertaking.

By the Otley Waterworks Bill, which has recently been before a Committee of the House of Commons, fresh borrowing powers are sought, with a period of sixty years for repayment. Owing to unavoidable causes, it was mentioned by Mr. Vesey Knox, for the promoters, the original estimates on the water undertaking have been exceeded by £40,000; but this has been almost entirely on the most permanent parts of the work.

Poplar's Rates.

The upward tendency of the rates has in Poplar, reached a point which is causing much disquietude. The ratepayers of this metropolitan borough are paying a rate of 12s. in the pound levied upon them by their borough council, and in order to lighten the immediate pressure of the burden the rate will be collected in four quarterly instalments of 3s. each. The rate is described locally as the highest in the kingdom. Alderman Robinson, the chairman of the Rating Committee, attributes the 12s. rate to the heavy calls of the Board of Guardians. Other members add to this the increase of twopence in London education rate. But for the claims of outside authorities, a ninepenny general district rate is sufficient to cover the needs of Poplar in the next three months, according to them.

Scarborough Delegates' Powers.

The Scarborough Corporation has decided to place certain powers which it holds under by-laws relating to the Clarence Gardens in the hands of the North Side Entertainment Committee. This body, which comprises representatives of the North Ward in the Town Council, together with other representative ratepayers, will thus be enabled to organise outdoor concerts and other entertainments in the kiosk, and to make charges for admission, obviating calls for public subscriptions. The gardens are a popular resort of summer visitors, and it is anticipated that when the south promenade is linked to the north by the opening of the new marine drive round the Castle Hill base their popularity will be greatly enhanced.

Carnegie Libraries for Caerphilly.

Twelve months ago the Caerphilly Chamber of Trade approached Mr. Carnegie, *re* providing a library for Caerphilly. A letter has been received by the Chamber's secretary from Mr. Carnegie, offering £3,000 to provide three libraries in the Caerphilly urban district, subject to the usual conditions—a 1d. rate to be levied and free site provided.

Alleged Mismanagement at Dewsbury.

The Dewsbury Town Council, sitting as the General Purposes Committee, on Thursday, had before it a letter from the Local Government Board, in reply to the Town Clerk's letter of the 23rd ult., which asked for a public inquiry by the Local Government Board into the allegations of mismanagement at the smallpox hospital made in the report by Dr. Wheaton, Local Government Board inspector. In its reply, the Local Government Board states that the onus of ascertaining who was responsible for the state of things disclosed in Dr. Wheaton's report lies with the Town Council. It would be contrary to the Board's practice, the Board adds, to undertake an inquiry, and it sees no sufficient reason in the present instance for departing from its usual practice.

Todmorden Waterworks Opened.

Alderman E. Lord, chairman of the Todmorden Waterworks Committee, last Thursday turned on the water at the new Todmorden Waterworks at Gorpley. Mr. Geo. F. Deacon, C.E., of London, has been the engineer for the scheme, and the reservoir, which has a capacity of 130 million gallons, will provide a daily supply of 621,000 gallons, exclusive of compensation water. A novel feature of the work is the removal of vegetation from the bottom and sides of the reservoir. For this purpose, five sand filters have been constructed, of such an area that the rate of downward flow at the surface of the sand will only be about four inches per hour when all the water is being used. At this very slow rate of filtration, a gelatinous film of fine mud and microbes forms upon the surface of the sand, and so long as this film is maintained intact the most minute organisms cannot pass it. The estimates of mean rainfall within the watershed of the reservoir have been on the safe side, and this has led the engineer to express the view that Todmorden will probably never require a second reservoir, which was originally intended, and was authorised by the Act of 1898. If this turns out to be the case, the ultimate cost of the reservoir works will be little, if any, more than half the authorised expenditure for the purpose. Mr. J. H. Parkin, A.M.I.C.E., acted as resident engineer of the works, and the contractor was Mr. Benj. Lumb, of Todmorden. Mr. Lumb's contract was for £49,413 15s. 4d.; the land cost about £8,000; the Water Act, £4,500; and the existing pipes within the borough, £18,000. Altogether, the total cost of the new works will probably be over £90,000. The Mayor of Todmorden (Alderman Wm. Jackson), in the course of the proceedings on Thursday, unveiled a bronze tablet in the water tower, and in the evening a banquet was given at the Todmorden Town Hall by the Chairman of the Waterworks Committee.

Wallsend and New Municipal Buildings.

The Wallsend Town Council has on hand a scheme for the provision of new municipal buildings, estimated to cost £12,000. One of the Aldermen (Mr. W. Boyd) takes objection to this proposed outlay, and at a special meeting of the council held recently a lengthy letter was read from him, in which he suggested that the Town Council meetings might be held in a Court House. He was satisfied that a building could be provided at about half the expenditure proposed. The communication was referred to a committee for consideration; but it is to be trusted that the local council will not be inveigled into the erection of cramped and unsuitable offices, which will be the *bête noir* of the future council.

PROGRESS IN EDUCATION.

The Second Year's Work. Consolidation and Administration. The Welsh Revolt. The Religious Difficulty. Training Teachers and Secondary Schools. Sensational Scholarship Schemes. Blue Books (Revised Version). Hygiene, Temperance, and Gardening as Part of the School Time-Table. Education as an Unremunerative Debt.

TO-DAY sees the end of the second year of Municipal Education—a year which has been conspicuous for a wealth of administrative detail and some successful attempts at consolidation.

For one thing, all the local education authorities had, during the year, commenced operations under the Acts of 1902 and 1903, the latest date being September, 1904. For another, South Kensington has been submerged in Whitehall. Naturally, the attention of our educational authorities has been devoted to the completion of their investigations into the conditions of education within the respective areas, and the practical experience of the first year has found expression in a general attempt at levelling-up all grades of public education.

In this process many of the difficulties that were met with during the first year have been solved, while on the other hand, some have continued to cause friction and lament. Perhaps the greatest and most common cause of complaint has been the well-founded one, anent the meagre financial resources available for the production of a complete, sound, and efficient service of municipal education.

The publication in the first month of the year under review of the report of the Moseley Commission gave rise to the usual reflections and criticism of the more academical side of teaching, as compared with the advanced, not to say, go-ahead, methods of our American and Continental competitors.

But the evidence of several of the Commissioners was not altogether enthusiastic over the systems as practised in American schools.

Those concerned with educational administration were no sooner engaged upon an examination of the contents of this report, than they were confronted with the issue of a series of Blue Books, commencing with that of the Inter-Departmental Committee on Physical Training in Schools.

The immediate result of the committee's findings was the overthrow of the "Model Course" of drill, and the abandonment of the military element in physical exercise for elementary school children.

The Welsh Revolt.

As was indicated in our review of last year, the Principality continued its aggressive attitude towards the Education Act, and caused the introduction in April, 1904, of the Education (Local Authority Default) Bill, which ultimately became law.

Several times my Lords at Whitehall have threatened to stop the revolt by the application of this Act, but it has not yet been put into force, although the action of the Merionethshire County Council would seem to be precipitating such a course. As a conciliating measure, proposals were made, and accepted by the Government, to form an educational council—a sort of Home Rule—for the whole of Wales.

At the time of writing, no further advance towards peace has been made in this direction.

The Religious Difficulty.

One of the chief surviving differences of opinion has been due to the giving of religious instruction in the non-provided schools.

Several councils like that of the West Riding have been uncompromising in their attitude towards the Church Party, even going to the length of penalising the teachers for giving scriptural instruction in the voluntary schools.

Attendance at school and school attendance have at last been discovered to be not synonymous. The National Society, supported by the archbishops, failed to secure the adhesion of its vigorous and younger brother—the Church Schools Emergency League, backed up by Mr. Cripps, K.C., M.P., in the thorny matter of the attendance of children at church.

In the controversy, Sir William Anson has had a lively time with the Bishop of Manchester, and others, in defending the famous circular (No. 512) issued by Whitehall, with a view to clearing up the misapprehension of managers.

Teachers in Voluntary Schools.

Much discussion and difference of opinion have surged round the teachers' agreements, and the methods of their appointment and dismissal in the non-provided schools. The local authorities, however, have come to the only logical conclusion, viz., that these teachers are not municipal officers, and the adoption of such opinion has, in most cases, settled the troubles with school managers on this score.

The familiar phrase "wear and tear," which threatened in the earlier stages of administration to become incapable of solution, has, by the exercise of tact and commonsense by the councils, aided by the good advice of the official associations, been settled by the amicable division of liabilities detailed even to the provision of a bucket for the cinders and ashes of the school.

Making Teachers.

The deficiency in the training college accommodation for students wishing to become teachers, and the absence of facilities by which the large army of uncertificated teachers could improve their position, have been largely met by the prompt action of the more enlightened educational bodies.

The provision in the Act for combination has been utilised with admirable results in this connection, and there are signs that the coming autumn will witness a much larger number of young men and women undergoing, in municipal training colleges, adequate training to fit them for the position of teachers in public rate-aided schools.

This result, however, has, we fear, been accomplished only by limiting the expenses in other departments of education. It is admitted now, on all hands, that the training of teachers is a State affair, and, therefore, the State should pay the major portion of the bill. To urge this point, deputation after deputation has been up to Whitehall and St. Stephens, but "fair words" has been the only result of the protestation.

To the credit of the municipal authorities, be it said, these refusals have but generated an increased desire to obtain efficient and sufficient teaching staff. As a further means to this end, the salaries of the teachers have undergone, during the year, a marked improvement.

Closely connected with this question of training colleges is that of the instruction of the apprentices, namely, the pupil teachers. The new regulations of Whitehall pointed the way to a conversion of the existing pupil teacher centres into secondary schools.

The local authorities have been quick to fall into line, but a protest must be made here against the sudden changes that emanate from the Board of Education, and the want of notice which precedes such alterations in the official attitude and practice.

By this time next year, in all probability the pupil teacher centre, as such, will have given place to the secondary school and its attendant preparation classes.

Much correspondence has been held with my Lords upon their requirements as regards the fees and the number of free places at secondary schools. Discontent was also caused by the apparent breach of faith with the local authorities in the matter of representation upon the governing bodies of the existing grammar and endowed secondary schools.

The issue of a letter by the Parliamentary Secretary recently upon this subject, however, would appear to be the precursor of a fairer recognition of the claim of the local councils to be represented upon, and to have part control of the affairs of the secondary schools.

Scholarships.

The good examples set by such cities as Manchester and Sheffield have been followed by many other authorities in the formulation of scholarships and exhibitions for the capable, intelligent, but poor man's child.

The great sensation of the year in this department was the adoption by the London County Council, of a gigantic scheme, to cost ultimately over a quarter of a million sterling a year.

Although the weight of professional criticism has operated against the inclusion of a bond for scholars wishing to become teachers, yet, in practice, the improved status, facilities for free education, and better pay are securing the entry of many young persons as recruits for the profession.

Blue Books.

A feature of the year has been the intelligent recasting of the many official regulations which have emanated from Mr. Morant, and which, as in the case of the new code, were conspicuous for the scholarly introduction from the pen of the permanent secretary.

The report of the Departmental Committee on Physical Deterioration was *the* issue of the year. Indeed, the waves of thought and criticism which it caused are still rolling up against the shores of public interest.

Although the report contains so much valuable evidence affecting the health of school children, it is somewhat farcical to learn of the new committee formed last week to out-Herod Herod in the matter of inquiring into the bodily condition of the scholars in the poorer-class elementary schools.

A Royal Commission was ordered during the year to meet for inquiry into the case of the feeble-minded, and is still in session.

Compulsory Evening Schools.

The inevitable result of the modern desire on the part of the working classes for their children to become wage-earners at the earliest opportunity led to the introduction by the Bishop of Hereford, on two occasions, of a Bill dealing with compulsory attendance at evening school.

As a sign of the times, this is significant, but the Bill has no chance this session.

School Curriculum.

The ordinary subjects of instruction have undergone little change. For the rural districts, nature-study has occupied a prominent portion of school work, while the claims of hygiene and temperance have been constantly urged by the medical profession.

Agricultural Instruction.

Although the energies of the new authorities have naturally been directed towards satisfying the needs of elementary and secondary education, it is satisfactory to note that the important subject of agriculture has not been altogether neglected in rural areas.

In spite of a continued decrease in the amount of residue grant distributed to county councils in England and Wales, the total sum (£88,000) appropriated for the various branches of agricultural education shows a slight increase. Indeed, the last report issued by the Board of Agriculture and Fisheries is very interesting and pleasant reading.

To take the subject of school gardens, which is most germane to elementary school work, we find that the number of gardens attached to day schools is 196, to

evening schools 183, to secondary schools, 11, and those separate garden centres or allotments used by the scholars number 94.

Legislative Efforts.

That hardy annual, the Private Bill for agricultural teaching, appeared this month in the House of Commons. Efforts to secure a representation of women on councils also show themselves in the introduction of a recent Bill.

Our friends north of the Tweed had a new Bill all to themselves last session, and are now engaged in watching with interest its re-introduction this session.

Financial Questions.

The relief which was felt by the education authorities during the first year, by reason of the quarterly instalments of the Imperial grants, will no longer be felt—the decision to pay once a year having been resorted to at the instance of the Treasury. Appeals against this retrograde step have, so far, proved unavailing.

The incidence of the new Aid Grant has been very welcome, but the increased burden of the voluntary schools and the tremendous outlay required in the region of secondary education (training of teachers, scholarships, evening and secondary schools, provision of training colleges, &c.) have caused the shoe to pinch very tightly in the majority of areas.

Indeed, overdrafts and arrears of payment by the smaller authorities have caused something akin to consternation. The withdrawal of the grants-by-age has not been financially to the advantage of the larger areas. As a result of constant agitation, it is expected that the new code shortly to be issued will contain a non-differentiating grant of at least 22s. a head.

The period for which loans have been sanctioned by the Local Government Board has received a set back. Thirty, instead of fifty, years for new buildings means increased annual charges on local rates.

On the other hand, furniture may be paid for out of loan, and such articles as pianos and school desks have been paid for out of capital account.

Another turn of the financial screw has been made by the withdrawal of the Science and Art scholarships grants, which has hit many of the education authorities rather severely.

The budgets of the various authorities all over the country show a total increase in the rates for education. Here and there one finds a rate as low as 4d. while the maximum rating is found at West Ham, where education demands no less than 2s. 10d. in the £.

Education as an Unremunerative Debt.

In the sense of not producing an actual cash profit, the education service is classed as an unremunerative debt. But the value of a good solid education to the community, as evidenced by a decrease in juvenile and adult crime, an extension of thrift, and a more intelligent support of communal duties and rights, really eventuates into one of the most remunerative services controlled by England's municipalities.

Altogether, England and Wales, with a population of 32,527,843, of whom nearly a fifth are educated in the public elementary schools, receive from Imperial sources the sum of £12,000,000 for the year.

To this, of course, has to be added the amount of £8,000,000 derived from the rates. Compare with the total of £20,000,000 the grants of £50,000,000 for the armies of Britain, and the item of £165,000,000 spent in beverages of an alcoholic nature, and no defence is needed for the "unremunerative" debt of a national education.

The Scotch Members of Parliament have been circularised on the necessity for inclusion in the Education Bill of some provision for dealing with the hundreds of tinker children of school age, who live in caves or tents, moving from place to place all the year round, and receiving no elementary education.

EDUCATIONAL NOTES.

Anglesey.

The Board of Education has refused to sanction the scheme proposed by the Education Committee for training its pupil teachers. Lord Stanley of Alderley, however, has seen the authorities at Whitehall, and it is understood that no further objection to the one year's teaching and one year's training would be taken by the Board.

Barnsley.

The District Education Committee was informed by its Chairman of Finance that by the end of the year the account at the bank would be overdrawn to the extent of £1,300.

Bedfordshire.

The Education Committee is considering the desirability of holding a course of lectures in hygiene and temperance for its teachers, preparatory to the introduction of these subjects into the school curriculum.

Blackburn.

The new Director of Education has been appointed, and is Mr. Gow, formerly principal of the Technical School. The salary attached to the post is £500 a year.

Bootle.

The Education Committee has declined to establish a pre-apprenticeship school, suggested by its sub-committee, for giving boys between 14 and 16 a more practical education with a view to ultimate apprenticeship in the constructive arts and trades. The average attendance at the elementary schools has increased to 88.3 per cent. during the month.

Chatham.

The Education Committee, having had its attention drawn to cases of children being sent into the playgrounds during inclement weather, insufficiently clad, has instructed the teachers to see that, in future, the children wore suitable clothing during the play interval.

Cheshire.

The County Council having submitted a return of school endowments to the Board of Education, the latter has forwarded a lengthy communication, giving the Board's observations upon the various classes into which the Trust Funds fall. A classification is made into classes (1) in which the Board considers it requisite that a scheme should be established for the regulation of the foundation; (2) in which the Board considers that the establishment of a scheme is probably desirable, but not technically necessary, and (3) in which the whole of the income may properly continue to be applied for purposes other than elementary education.

The County Committee asked the Local Government Board to sanction the levying of a higher education rate in excess of 2d. in the £. The Local Government Board has replied declining to do this, pointing out that it can only sanction a definite increase, and asking for full particulars of existing funds and their application.

Chelmsford.

The education rate for next year is fixed at 4d. in the £. The question of attendance of children at church is still causing considerable discussion and difficulties between the committee and school managers.

Durham.

The County Council has under consideration a scheme of rural education in the interests of agriculture, which has been submitted by the Farmers' Association and been approved by the Board of Agriculture.

Gateshead.

The subject of making suitable provision for passing children on from the primary to the secondary schools has been considered by the Education Committee, which has referred it to a sub-committee to investigate and bring up the necessary scheme of co-ordination.

Gloucestershire.

The Education Committee had its attention called to an advertisement for a teacher in a non-provided school under its maintenance, which stated that the applicants must be communicants. It was held that the managers could advertise, but if the committee disapproved the terms of the advertisement it could refuse to pay.

Irish Education.

The National Board has raised a hornet's nest about it by passing the following rule:—"Boys under eight years of age are ineligible in a boys' National school, where there is not an assistant mistress, unless there is no suitable school under a mistress available in the locality." The last report of the Commissioners states that the number of assistant teachers in the National schools is 3,387, of whom only 1,088 are men.

Kent.

The scholarships offered by the Education Committee during the year include those for pupil teachers (100); Secondary schools (170 places); teachers training at Goldsmiths' College, New Cross, Domestic Economy for Girls (30); and agricultural scholarships tenable at the college at Wye.

London.

The new warden of the University College for Teachers (Goldsmiths' College), New Cross, is Mr. Loring, formerly of the West Riding; and Professor T. Raymont, M.A., of Cardiff, has been offered the post of Master of Method and Lecturer on Education.

Lancashire.

The Education Committee has appointed a Special Committee to consider the question of curriculum in the rural schools as distinct from urban schools.

Leicester.

The honorary freedom of Leicester has been conferred upon Mr. Alexander Baines, who for over 20 years has been identified with public education, and is still serving on the Education Committee.

Macclesfield.

At a recent meeting of the Primary Education Committee, the question of who is responsible for damage done by the children to the trees, &c., outside the school was answered by the Town Clerk, who stated that the Education Committee could not be held responsible for such damage.

Manchester.

The Education Committee has decided to establish a school of domestic science and art, and negotiations are proceeding with the existing school of domestic economy, with a view to its amalgamation and absorption.

Norwich.

The Education Committee has agreed to hand over to the managers of the model school an eighth of the school fees received after the "appointed day."

Torquay.

The Education Committee has decided, by nine votes to five, to exclude the Press from its meetings in future. It was also decided to obtain a return of the musical instruments in schools and the actual use to which they are put.

NOTES AND ANSWERS.

Legality of the Employment of Professional Auditors by the Council of a Borough. A Knotty Question in Regard to Penalties Imposed for Offences Against Elementary School Bye-Laws. Other Educational Matters. Can a Councillor who is an Auctioneer Sell Goods to his Corporation? Stamping of Agreements. An Important Point in Regard to Elections for Urban District Councillors. Disqualification of a Paid Member of a Fire Brigade to Sit on an U.D.C. Application of the Phrase "Different Owners" in the Public Health Amendment Act (1890).

[BY A BARRISTER.]

679.—EDUCATION ACTS—Must School Accommodation be Provided for Children Between Three and Five?

The Elementary Education Act, 1870, Sec. 5, enacts that sufficient accommodation shall be provided in public elemeutary schools for all the children resident in the district. There appears to be no defiuition of "child" in the 1870 Act. The definition in the 1876 Act, Sec. 48, is "a child between the ages of five and 14 years." Under Sec. 74 of the Act of 1870, bye-laws may be made requiring the attendance at school of all children not less than five years of age. By Sec. 1 of the Elemeutary Education Act, 1891, certain grants are giveu for each child over three and under fifteen in average attendance at auy public elementary school "the managers of which are willing to receive the same." The Day School Code, Regulation 78, enacts that no child may be refused admission as a scholar on other than reasonable grounds. The question has arisen whether the managers, or, in the case of council schools, the council have a right to refuse to receive children under five years of age on account of tender age or otherwise. It is stated in "Owen on the Education Acts," twentieth edition, p. 206, that the rule of the Education Department was to require accommodatiou to be provided for children betweeu three aud five, though I am unaware of any authority for them to do so. If the definitiou of "child" iu the Act of 1876 can be applied to the Act of 1870, it would seem that children between three and five would not be within the Act.—"EDUCATION."

Sec. 18 of the Education Act of 1870, as amended by the Act of 1902, enacts, that the local education authority "shall from time to time provide such additional school accommodation as is, in the opinion of the Board of Edueation, neeessary, in order to supply a sufficient amount of public school accommodation for their district." (See also Sec. 16 of the Act of 1902, and rule (5) of the third schedule thereto). There would appear to be no statutory definition of "child" for the purposes of the Act of 1870. We do not think that the definition supplied by Sec. 48 of the Act of 1876 can properly be regarded as extending beyond the seope of that Act. That section expressly limits the definition to the Act of 1876. The portion of Sec. 1 of the Act of 1891, referred to by our correspondent, seems to suggest that the managers of public elementary schools *may* exclude children under five. Nevertheless, it would appear that, having regard to the provisions of Sec. 18 of the Aet of 1870, above quoted, the local Education authority must yield to the Board of Education if that department requires school accommodation to be provided for children between three and five years of age. It is not so clear, however, that the Department can go further and compel managers of public elementary schools to admit such children, and we doubt whether it can legally do so.

680.—CONTRACT OF CORPORATION WITH OCCUPIER FOR THE PURCHASE OF ELECTRICAL FITTINGS—Must the Agreement be Stamped?

A committee of a municipal corporation has the following scheme on hand with reference to the supply of electricity, viz.:—"To wire consumers' premises, supply fittings, &c. (through a contractor), the fittings, &c., to remain the property of the corporation until such time as the cost of the installation has been repaid by equal quarterly instalments of principal and interest over a specified period." Will it be necessary, if the amount of the installation exceeds £5, to have the form of agreement (which is under hand aud duly witnessed) to be stamped with an ordinary agreement stamp, as provided by Sec. 14 of the Stamp Act of 1891? or would the transaction come uuder the Sale of Goods Act, as per "Rex v. the London Telephone Company"?—"A TATONS."

The Inland Revenue Commissioners issued a circular in 1902, in which they state that, "Agreements which expressly impose on the purchaser an obligation to pay all instalments of hire and purchase are exempt from duty under the head agreement in the first schedule to the Stamp Aet, 1891, as being agreements relating to the sale of goods. If, however, there be a clause of 'defeasanee' empowering the purchaser to free himself from further liability, the agreement is not exempt." This rule is based apparently on the decision in "Lee v. Butler" ([1893] 2 Q.B. 318), and "Hellz v. Mathews" ([1895] Appeal Cases, 471). In the latter case it was held that a hire purchase agreement which contained a binding offer to sell, but no absolute obligation on the part of the hirer to pay all the instalments, was not an agreement to purchase goods. If, therefore, in the case submitted, the form of agreement between the corporation and the occupiers of houses, to which fittings have been supplied does not bind such occupiers to pay all the instalments, and so purchase the fittings (and, from the extract quoted, we should judge this to be the effect), the agreement will not be considered to be one for the purchase of goods, and, accordingly, it will be liable to stamp duty under the heading indicated.

We have not been able to traee any case on the subject under the title, "Rex. v. The London Telephone Company." Further, our correspondent's reference to Sec. 14 of the Aet of 1891 is not in point, as that section deals with the terms on which an agreement not duly stamped can be produced in evidence.

681.—BYE-ELECTION FOR AN ELECTIVE AUDITOR—The Question of Expenses.

We had a bye-electiou here recently for an elective auditor. Three candidates stood for one vacancy. After the poll, certain information reached me (as the agent for the second candidate ou the poll), that the successful candidate had issued au appeal for support amongst his supporters. We clearly understood that the Act uuder which these elections are carried out states that no expeuse of any kind shall be incurred towards promoting the candidature of anyone. If our view is correct, kindly advise us what steps to take, not so much to render the contest null and void, but to preveut these underhand tactics at any future contest.—"P."

We dealt with a query somewhat similar to this in our issue of the 17th February. (See query No. 635 and reply thereto.) It was there pointed out that candidates for office as elective auditors, cannot lawfully incur any expenditure in connection with their candidature (Sec. 5 (1) Municipal Elections (Corrupt and Illegal Practices Act, 1884). Any candidate or his agent who knowingly acts in contravention of this practice is guilty of an "illegal practice." Under Sec. 20, however, of the Act of 1884, the High Court or an Election Court are empowered to exempt innocent acts whieh would otherwise constitute an "illegal practice" from the penalties prescribed for such practices. The punishment for an "illegal practiee" is dealt with in Secs. 7 and 8 of the same Act. The person guilty is liable on summary conviction to a fine of £100, and is incapable of being registered as an elector for five years. The "illegal practice" may also be the ground of an election petition against the successful candidate guilty of the same.

682.—U.D.C. ELECTION—Misdescription of Candidate on Nomination Paper—Validity.

As a constant reader of your journal may I submit a rather important point for your kind consideratiou and opiuion. I was a candidate at the receut election for the U.D.C. here, and was duly nominated, aud my nomination-papers were strictly iu order. I had an opponeut iu the field, and you will see by the enclosed that he is described "gentleman." I made objection to this description on the following grouud:—My opponent carries on farming in the district to raise cattle, and he also has some few butchers' shops in London, for which he is away from here several days in the week. The poiut I raised is that by describing himself "gentleman" he leads ratepayers and voters to believe he is able to devote the whole of his time, or at any rate give much more time and atteution to his public positiou than the average tradesmeu or myself. I have submitted the point to a frieud experienced in local government matters, and he agrees that the nomination is bad aud misleading from many points. I also remarked that duriug the time I was a borough councillor that objection was takeu to a gentleman who classed himself similarly, whereas he was part owner in a public-house, aud the objection was upheld.—"X."

Art. 4 (2) of the General Order of the Local Government Board, relating to the election of urban district councillors, provides that the nomination paper shall state (*inter alia*) the "description" of the candidate. Clearly, one whose time is occupied pretty completely in farming, and by looking after businesses, is not accurately described as "gentleman." This description, however, is so widely and vaguely used, that it is very doubtful whether any serious steps could be taken to contest the validity of the election in this case. Objection might, we think, have been raised before the returning officer, though he is not expressly granted jurisdiction in the matter by the above-cited order. On the other hand, by Art. 32 of the same Order, it is provided that, no misnomer or inaccurate deseription of any person or plaee named in any nomination paper shall hinder the full operation of such paper, "provided the description of that person or place is sueh as to be commonly understood." Having regard to this provision, and to the loose and vague meaning attached to the description "gentleman," and to the apparent fact that the paper has been passed by the Returning Officer, we do not think any objeetion can be validly raised in the matter.

683.—IS A PAID MEMBER OF THE FIRE BRIGADE OF THE U.D.C. DISQUALIFIED FOR ELECTION AS COUNCILLOR?

M stands as a candidate for electiou at the election of councillors for au urban district council. He is a member of the urbau district couucil fire brigade, and as such is paid an annual salary, and also for attendance at fires. If elected as councillor he is prepared to forfeit all payments, and work voluntarily, but is informed that he cannot take up the above position, but must sever his connectiou entirely with the fire brigade. I should be glad if you cau give me the legal position of M. Also, if he continued to act on the fire brigade, would it disqualify him as a councillor, or is there any penalty?—"BRITON."

Under Sec. 46 of the Local Government Act of 1894, anyone concerned in any bargain or eontract with the District Couneil, or holding any paid office under the Council, is disqualified *for being elected* or sitting as a councillor in that district. Clearly, therefore, M., as a paid officer is disqualified for the position of councillor. His intention of not taking any emolument for his services, if elected, cannot alter the disqualification which exists at the time of the election; and he will be liable to a fine of £20 for each offence of acting as a councillor when disqualified. The only satisfaetory course will be to resign his position on the fire brigade if he desires to be a conneillor, and would avoid liability to the heavy penalties prescribed.

684.—U.D.C. ELECTION—Qualification for Voting by Residence.

I have lived in the urban district of G—— for 13 months. I am not on the register as a parochial elector. Am I qualified to be elected on the Urban District Council of G——? Can a married woman or spinster or widow who is not on the register as parochial elector be qualified to be elected a councillor on the urban district council by residence?—"H. M. S."

In the absence of positive disqualifications, any person—man, or women—who has, during the whole of the twelve months preceding the election, resided in an urban district, is entitled to be elected as a councillor of such district (Sec. 23 Local Government Act, 1894). Apparently such persons are qualified to be elected (though not to vote at an election of councillors, even though not on the register.

685.—NUISANCE ARISING FROM STACK-PIPE. (Query No. 653.)

I beg to thank you for your information *re* above, but as I have already tried to come to terms as to fixing another pipe with the owners of the houses adjoining, and, in reply, from the owner of the two houses adjoining my house on the one side, was told he did not want to spend any more money on his property, neither would he consent for a pipe to be erected on his property. I shall be glad if you could let me know what other steps I could take. I may say, the owner of the one house adjoining on the other side is willing to bear a part of the cost. I may also state that the five houses were built by the same builder and at the same time, the nuisance existing for some years now. no conditions whatever being stipulated as to stack-pipes, &c. With reference to your suggestion *re* applying to the local authority, we have an Improvement Act, 1904, and I enclose sketch showing how the water is carried off, and should be obliged if you would kindly inform me if you think I should be right in applying to the authority, and should they decide on erecting a pipe would the other owners be compelled to contribute a portion of the cost.

We have little or nothing to add to the reply to this query in our issue of the 10th March. The stack-pipe seems to us to be technically a sewer; that being so, the local authority would have power under Sec. 19 of the Act of 1890 (if adopted) to abate the nuisance and recover the cost from *all* the owners concerned. In any case, apart from this provision, the local authority has a general jurisdiction in regard to nuisances, and may take steps for their abatement. It seems to us, therefore, that our correspondent should communicate with the local authority in the matter, rather than take the law into his own hands by cutting off the connection between the gutter draining the roofs of the three houses of the recalcitrant owners and the stack-pipe which receives the rain water.

686.—PENALTIES UNDER EDUCATION BYE-LAWS IN BOROUGH—Do they Go to the Corporation or County Council?

The justices of a borough which has a separate commission of the peace, but not a separate court of quarter sessions, in the exercise of their summary jurisdiction, imposed penalties for offences against the elementary school bye-laws of the town council. Should these penalties be paid with the court fees to the corporation, or should they go to the county council? Please give authority.—"Penman."

We have not been able to find any definite authority on this matter. As bearing indirectly on it, however, we may refer to the statement contained on page 281 of Owen's "Education Manual," to the effect that the Home Secretary expressed an opinion in 1883 that the law did not impose on the police the duty of collecting penalties imposed on parents for neglecting to send their children to school. The only course open to the local education authority is, therefore, to take steps to collect penalties through its own officers. The borough council is, in the present case, the local education authority, and, having regard to the above, and also to the absence of any provision directing the penalties referred to to be paid elsewhere, it would seem that the proper authority to receive them is the borough council, the bye-laws (as education authority) of which are infringed.

687.—PUBLIC HEALTH ACT AMENDMENT ACT, 1890—Meaning of Phrase "Different Owners" in Sec. 19.

Sec. 19 of this Act has been adopted, and is in force in the borough. What is the construction to be put upon "different owners" in that section? Two brothers trading together under a partnership deed own several houses in a group. If these houses are to be held as belonging to one owner, there is little question that the drain carrying off sewage matter, which is in a bad state, is a sewer, and must therefore be repaired by the local authority: but if these two brothers trading together, and holding the property as joint tenants, can be treated as "different owners," the drain is still a drain, and the burden of repair is on them. Kindly advise me whether you think the brothers above mentioned are "different owners" within the meaning of the section above referred to.—"W. G."

There does not appear to be any legal decision on this point, or any authoritative ruling determining the meaning of the phrase "different owners," as used in Sec. 19 of the Act of 1890. In our opinion, the words cannot properly be applied to a case such as that submitted, where all the houses belong to two owners jointly, who are partners as to the profits of the property. As such, they may fairly be regarded as one owner. Taking the words in their ordinary grammatical meaning, the phrase "two or more houses belonging to different owners" can only be appropriately used where one house is in different ownership from another or the others of the row. In our opinion, the houses in this group do not belong to "different owners," and the local authority could not legally compel them to repay such authority the cost of remedying any nuisance to the combined drain or sewer draining the group, under Sec. 19 of the Act of 1890.

688.—EMPLOYMENT OF PROFESSIONAL AUDITORS BY THE COUNCIL OF A BOROUGH—Legality.

(1) In answer No. 672 (in your column of the 24th March) you doubt the legality of the employment of professional auditors in addition to the elective and mayoral auditors provided for by law. But no one supposes it to be illegal to appoint accountants and clerks to keep the accounts (in addition to, or even to the practical exclusion of, the treasurer): so why should it be considered illegal to employ additional accountants to look over the accounts and see if they are right? Supposing the accounts of a borough were found to be in disorder, in spite of the elective and mayoral auditors, is it alleged that it would be illegal to call in the assistance of a firm of accountants to put them straight?

(2) Supposing the course indicated to be technically illegal, do you think any aggrieved burgess would be likely to take the matter into Court?

(3) Where a borough has a surplus on the borough fund, and pays the additional auditors out of this, would you regard the payment as still illegal?—"E. C."

Special provision for auditing the accounts of municipal corporations is made by law, viz., audit by elective auditors and the mayor's auditor. However ineffective this may be, the provision being made, a strong inference arises that expenditure in connection with the services of professional accountants is not contemplated by the Act of 1882, which is the municipal code, and that such expenditure may not be lawfully incurred for this purpose. The fact that many corporations have deemed it advisable to seek special power in their local Acts, enabling them to employ and pay such accountants, amounts to evidence in favour of the same conclusion. Where the accounts have got into confusion, the corporation might properly incur the necessary expenditure required to put them right again, under its general powers; but this is a different matter from the regular employment of a firm of accountants to fulfil duties which, in theory, at all events, are performed by officers appointed in accordance with the Act of 1882.

2. We do not know of any case where an aggrieved burgess has taken action on an order of a town council to pay money under the circumstances indicated. The order has to be brought up to the King's Bench Division by *certiorari* and private burgesses are unlikely in ordinary cases to incur the expense and trouble involved in this procedure. At the same time, no one can say when an energetic burgess, with money to spare, may not make the attempt.

3. Any surplus on the borough fund is earmarked for purposes specified in Sec. 143 of the Act of 1882, and should not be devoted to the purpose of paying accountants for auditing the council's accounts.

We must add, however, that in several large towns professional accountants are employed and paid from the borough fund, without any special provision enabling the council to do so, and apparently no serious objection has hitherto been made in the matter.

689.—FREEDOM OF THE CITY OF LONDON—How Far are Privileges Hereditary?

We have received a query from "Grandson" inquiring as to the privileges of freemen of the City of London, and also how far these privileges are hereditary.

Freedom of the City may be obtained by any one of four methods:—(1) Being bound to a Freeman, as apprentice; (2) By patrimony, as the son or daughter of a Freeman; (3) By gift of the City; (4) By redemption or purchase. (See article on the "Corporation" in "The London Manual," published at the offices of this Journal, price 1s. 6d.) Anyone who is a Freeman and Liveryman of a City company, and also Freeman of the City of London (and generally these qualifications all go together) is entitled to be placed on the Parliamentary Register—subject to certain conditions as to time and residence. For any further information, our correspondent should apply to the City Company with which, presumably, his grandfather (as we gather) was connected; or, if the company is not known, then to the Town Clerk of the City.

690.—FINAL EXAMINATION OF INSTITUTE OF MUNICIPAL TREASURERS AND ACCOUNTANTS.

Will you kindly advise me as to the most concise book to read up for the legal part of this examination, excluding the knowledge of Acts of Parliament? What I want is a book giving definitions and explanations of such terms as mortgages, deeds, agreements, seals, cheques, trustees and bonds, and other such terms relating to finance.—"Accountant."

We have not seen the final examination papers of the institute, and cannot, therefore, definitely advise. If our correspondent can obtain and forward a copy of the papers, we will do so. Meanwhile, we may say that Slater's "Commercial Law" (published for a few shillings, by Pitman and Sons), is a sound and clear work on general commercial law, and deals with some of the subjects referred to in our correspondent's query, and in the final syllabus (*e.g.*, cheques, &c., contracts, parties, consideration, and discharge) Kelhe's "Epitomes of Real Property and of the Rules of Interpretation of Deeds" (recommended in the syllabus), would probably cover most of the other points. These are concise and useful works.

691.—QUALIFICATION FOR ELECTIVE AUDITOR—Can Borough Magistrate Act as Such?

Is there any definition in the Municipal Corporations Acts defining the persons who are eligible to serve as elective auditors? Can a borough magistrate act as elective auditor? He will have to audit the accounts of the police court, and everthing connected with the Bench.—"Enquirer."

Yes. Sec. 25 of the Municipal Corporations Act provides that an elective auditor must be qualified to be a councillor, but may not be a member of the council, or the town clerk, or the treasurer. There is no legal objection (or other objection, so far as we can see) to a borough magistrate being elected and acting as elective auditor of the borough.

692.—IS A COUNCILLOR WHO SELLS GOODS TO HIS COUNCIL AS AUCTIONEER DISQUALIFIED FOR OFFICE?

Is it competent for a councillor who is an auctioneer to sell to the corporation any goods. In this case the auctioneer, who is a member of the Library Committee, sold to the committee a quantity of books. His account was sent in to the committee

accepted, and paid. Can a councillor legally have such a transaction with a corporation.—"Enquirer."

We are not sure whether in this case the auctioneer sold goods of his own, or merely acted in his office for others, and collected the sums bid by the representative of the Library Committee for the books. If the former, the auctioneer would clearly be interested, "directly or indirectly," in a contract with, or on behalf of, the council, and during the subsistence of the contract would be disqualified for acting as a councillor. On the other hand, if he merely acted as auctioneer and intermediary between the committee and some seller, his only interest in the contract is connected with his fee as auctioneer, and the commission (if any) receivable on sale from the purchaser. If any such commission is paid by the committee, this would appear to technically disqualify him for office.

Having regard to the recent decision of Mr. Justice Darling in the case of "Cox v. Truscott," even if an interest in a contract with the council be shown to exist on the part of a councillor, he will not be disqualified for acting as such after everything under the contract has been done except payment made.

693. — EDUCATION ACTS — Power to Compel Attendance of Children.

Could you inform me through the medium of your journal if the school board officer has the right to call upon a ratepayer rated at £50, in regard to his children not attending school, and, if so, is there any exemption limit? Thanking you in anticipation.—"W. G. G."

Under Sec. 74 of the Education Act of 1870 (as amended by recent Acts), the Local Education Authority is authorised to make bye-laws requiring the parents of children of not less than five, and not more than fourteen years of age, to cause such children to attend school, unless there is some reasonable excuse; and under Sec. 4 of the Education Act of 1876 it is the duty of the parent of every child to cause such child to receive efficient elementary instruction in reading, writing, and arithmetic. Amongst other "reasonable excuses," the following are specified:—

1. That the child is under efficient instruction in some other manner.

2. That the child is prevented from attending school by sickness or some other unavoidable cause.

3. That there is no public elementary school within a reasonable distance of the child's home.

The education authority may appoint school attendance officers and others to see that these provisions are carried out. No rating limit is fixed the occupiers of houses beyond which are exempt from the provisions of these enactments; and the officers concerned are entitled to make inquiries at all houses, whatever their value, in cases where they may have reasonable ground for suspecting that children may be residing who are not attending school or being properly educated.

MUNICIPAL FERRYBOATS.

THE Wallasey District Council is applying for powers to borrow £44,000 for the purchase of two new passenger steamers for ferry service. The Council has a passenger fleet consisting of ten steamers, three being twenty-five years old, and two nineteen. No additional provision of ferry boats has been made since 1900, although the increase in gross traffic has been about 2,300,000. This week a Local Government Board inquiry is being held.

The "Sanitas" Company, Limited, the well-known disinfectant manufacturers, are giving notice that, in consequence of the great increase in their business, they are about to remove their entire offices from their Bethnal Green factory to their new factory at Limehouse; in consequence, their new postal address, as from Monday, March 27, will be Locksley Street, Limehouse, London, E.

"BORROWINGS BILL."

A Reply from the London Mercantile Chamber.

(To the Editor.)

SIR,—Metaphorically, your leading articles of the 17th inst. are intended as trailers upon which I am expected to tread, when promptly your shillelah will be used to batter my luckless arguments. Why, Mr. Editor, should you so entice me? You have so many tails to the garment of your indignation that, should I step lightly on any one of them, the consequence may be that the Municipal Journal will declare itself triumphant.

With regard to the London Mercantile Chamber, it is composed of about 300 members, mostly leading retail suburban traders, who have much to gain or lose by the success or failure of municipal government. Their home districts are not simply their dormitories, but in them they expect to make their livelihoods. They have no rooted objection to municipal trading; indeed, my circular did not so much as mention the expression, and I do not wish, just now, to emphasise views upon a subject fraught with interests so divergent. Municipal borrowings can, and should, be restricted by legislation—that is my contention.

1. "Delightful confusion existing in the mind of the writer concerning the association of high borrowing with rates," &c.

In 1891 the rates were equivalent to 19s. 2d. per head of the population of England and Wales, and in 1901, £1 6s. 11½d. per head; although the rateable value during these ten years increased from £18 per cent. to £40 per cent.

Municipal borrowings increased at the rate of an average of 12½ millions per annum between 1893 and 1901.

In London (which most concerns the London Mercantile Chamber), the unremunerative expenditure for year ended 31st March, 1901, was 88 per cent. more than that which was remunerative.

Is it not a fact that as the municipal debt increases in London the rates increase proportionately? Does not the financial result of the London County Council tramway undertakings teach us that we cannot hope much from municipal trading in London? Can we expect that, in view of the facts, we can greatly improve the London figures and transform any considerable part of the unremunerative expenditure and make it remunerative?

There is a very strong suspicion in the minds of eminent economists, merchants, and bankers that the profits claimed by provincial towns as having been realised on municipal enterprises will, by the effluxion of time, be proved to have been wrongly calculated.

An official of the Glasgow Corporation stated early this year:—

"Electricity is still in its infancy; indeed, the electrical engineer is one of the terrors of the tramway manager's existence. Every month he would like to introduce something new; his capacity for spending money is wonderful. We are, therefore, very happily situated when we have a few thousand pounds in the reserve fund."

It is the question of depreciation and obsolescence which makes the ratepayer feel uneasy as to the reliability of the glowing figures given, especially when it is borne in mind that before some of the loans are repaid much of the machinery will be "scrapped" or consigned to antiquity.

Now, Glasgow is, as you know, a borough where at 31st May, 1904, £25,000 was transferred from the Corporation Tramways Account to the "Common Good," and where depreciation, renewals, and reserve funds have all had their appropriations. What would arise in the mind of the business man is this: could not this £25,000 be regularly secured by leasing the lines, and could not all doubt as to the reality of the profits be removed by allowing private enterprise to work the lines? The North London system of trams (leased), realised for the ratepayers—for 1904—£27,657, and the South London system (worked by the Council), a loss is shown of £8,283. With such figures as these before us, does it not appear, when looked at without bias, that no good purpose is being served the ratepayers by corporations intermeddling with schemes which could be carried out quite as effectively, and at the same time more profitably to the ratepayers, by private effort?

2. Is it so strange a notion that municipal borrowings should be restricted? The Hon. Robert P. Porter (an American) stated before the British Association at Belfast, September 12th, 1902:—

"In the 'forties and 'fifties an epidemic very similar to the present fever for municipal trading in England literally swept over the United States, and ended in bankruptcy and ruin. The taxpayers of those times, who saw their property practically confiscated to pay for enterprises which should have been left entirely to individual endeavour or private speculators, invented a device known to us as the "debt limit clause," and this clause, in some form or other, has been inserted in nearly every State constitution drawn and adopted since those days of financial disaster and destruction of State and local credit. In some States, so deep were the scars, that additional clauses were inserted, prohibiting the use of public funds in any industrial enterprise whatever. The debt limitation ranges from 10 per cent of the assessed value of property returned for taxation in New York to 5 per cent. in many of the Western States, and in one State so low as 2 per cent. Thus, assuming the assessed value of taxable property in New York City is 600 millions, the limit of its indebtedness would be 60 millions."

3. Re-assessment. It is "mean expedients" of the rating authorities of which I complain. That assessments are arbitrarily increased to cover the extravagant schemes of local districts is often apparent, and it is the merchants, manufacturers, and traders who mostly suffer, and not so much the private-house residents. Instance the assessment inconsistencies in connection with the large district covered by the West Ham Union. Ratepayers have become so incensed, and have so stirred public feeling, that far better treatment is now meted out than was the case a few years ago.

This allusion to the shopkeepers does not mean that I disapprove of their assessments being raised according to the improvement of their districts, but local private enterprise contributes extensively to the rates, and consideration should be shown to those who are bearing the heaviest burdens of maintaining a district. Municipal ambitions should not be allowed to ride rough-shod over an important class of ratepayer. Often when a local borough wants money, this policy of squeezing the largest local businesses is embarked upon *via* the assessments.

The London Mercantile Chamber maintains that the time has now arrived when a halt should be called with regard to municipal borrowings, and the work of the Select Committee of the Houses of Parliament of 1903 should be completed by the appointment of a Royal Commission or another Joint Select Committee.

The President of the London Mercantile Chamber (Mr. Louis Sinclair, M.P.), writes us to say that his Bill for the creation of a Ministry of Commerce and Industry, much of which will probably be adopted into the Government Bill, covers this question in Clause 3, Sec. 3, subsec. D, which provides: "The Board of Commerce and Industry shall establish a bureau of corporations to investigate the management of corporations, joint-stock companies," &c. Whether the Government measure will cover this ground, yet remains to be seen, but I think that I have sufficiently demonstrated the necessity for some intervention by the legislature for the purpose of controlling what may develop into a far-reaching evil.

Yours obediently,

J. H. WORRALL.

Manager—London Mercantile Chamber,
174-5, Aldersgate Street, E.C.
March 27th, 1905.

[See "Notes and Comments."—Ed. *M.J.*]

Official Advertisements.

BOROUGH OF SOUTHEND-ON-SEA.

ERECTION OF PUBLIC LIBRARY.

THE Corporation invite Tenders for the ERECTION of a PUBLIC LIBRARY in Victoria Avenue, Southend-on-Sea.

Applications for Bills of Quantities and Form of Tender must be made to the undersigned, accompanied by a deposit of £2 2s. 0d. (which will be returned upon receipt of a bona-fide Tender).

Sealed Tenders, marked "Tender for Public Library," are to be delivered at the Office of the undersigned on or before 5 o'clock p.m. on Thursday, the 27th day of April.

The Corporation will not be bound to accept the lowest or any tender.

By order.
WILLIAM H. SNOW,
Town Clerk.

Town Clerk's Office,
Southend-on-Sea,
28th March, 1905.

CITY OF LONDON COLLEGE.
ACTING IN CONJUNCTION WITH THE LONDON CHAMBER OF COMMERCE,
WHITE STREET, AND ROPEMAKER STREET, MOORFIELDS, E.C.
(Near Moorgate Street and Liverpool Street Stations.)

Principal:
SIDNEY HUMPHRIES, B.A., LL.B. (Cantab.).

EASTER TERM commences APRIL 3RD.

DAY COMMERCIAL SCHOOL. One year's course fits students (both sexes) to take positions in commercial life.

The course includes Typewriting, Shorthand, Book-keeping, Office Routine, Geography, French, German, and Spanish.

Perfectly-equipped Chemical, Biological, Physiological, and Physical Laboratories.

Students are prepared for B.A., B.Sc., Pharmaceutical, Primary F.R.C.S., and Conjoint Board Exams., Civil Service, the Institutes of Accountants, Actuaries, Bankers, Surveyors, and other Examinations, for all of which special courses are arranged.

Drawing, Painting, Design, Embroidery, and Wood Carving.

Special Saturday Courses, preparing for the Matric and Inter and Final B.A. and B.Sc.

Lectures and Entertainments are given every Thursday Evening.

Prospectuses and all other information gratis on application.

DAVID SAVAGE, Secretary

THE SANITARY INSTITUTE.

EXAMINATIONS IN SANITARY KNOWLEDGE.

In SANITARY SCIENCE as applied to Buildings and Public Works, and for INSPECTORS OF NUISANCES (under the Public Health Act, 1875).

In London, on MAY 5th and 6th, 1905.

The last day for receiving applications is April 22nd, 1905.

For INSPECTORS OF MEAT and OTHER FOODS.

In London, on MAY 12th and 13th, 1905.

The last day for receiving applications is April 29th, 1905.

Forms of application and full particulars can be obtained at the Offices of the Institute, Margaret Street, London, W.

E. WHITE WALLIS, Secretary.

AGENTS REQUIRED in unrepresented districts for the Imperial Accident, Live Stock, and General Insurance Co., Ltd. Estd. 1878. Departments: — Personal Accidents, Carriage and Drivers' Accidents. Horse and Cattle Insurance. Claims paid £300,000. Address Mr. B. S. Essex, Manager, 17, Pall Mall East, London, S.W.

WANTED, Junior Clerkship in Town Clerk's and Justices' Clerk's Departments. Willing to assist in general work of solicitor's office. Age 19. Four years' experience. Shorthand and typewriting. Excellent testimonials. R. P., 1, Surbiton Villas, Newbury.

A CHORUS
OF
APPRECIATION
OF THE NEW ISSUE
OF THE
Municipal Year Book,
1905.
NEARLY 700 PAGES.

Price 3s. 6d. By Post 3s. 11d.

A Local Government Official: "The volume contains all that could be desired as a reference to municipal affairs."

A Town Clerk: "Your exceedingly valuable YEAR BOOK."

The Times: "A valuable publication. . . . A complete analysis of municipal activity throughout the country."

The Spectator: "This volume contains a vast amount of information about the management of municipal affairs in all the cities throughout the United Kingdom."

Pall Mall Gazette: "It would be hard to mention a subject of public activity and inquiry or a borough of note not dealt with in this volume of six hundred pages of veracity for three-and-six."

Globe: "The MUNICIPAL YEAR BOOK has grown into a volume as portly as it is unquestionably valuable."

Scotsman: "Each new edition increases both its size and its utility."

Glasgow Evening News: I have just been dipping into what in its way is one of the most wonderful little books in the world. Perhaps the word "little" is somewhat misplaced, but first impressions are hard to efface altogether, and, as has been said once before in this column, the "Municipal Year-Book," when I first knew it, was a comparatively slim little volume in a mildly orange cover which seemed almost to offer an apology for its existence. It is slim no longer, little no longer, not quite sure of its ground no longer, but a handsomely-bound, almost formidable volume of more than 600 pages, packed full of fact of high significance and moment. I have called the "Municipal Year-Book" for 1905 a wonderful book. There is no mistake about that adjective. The book is wonderful — wonderful in itself as a compendium in fact and figure of the municipal life of to-day, and wonderful in relation to what it stands for. I am quite aware that you will search the bookstall high and low in vain for a copy of this volume — it is not the sort of thing most people would select to wile away the tedium of a railway journey. Nor does it get any place at all in the front row in the bookseller's window. All the same, this work is closer up to the life of the people, more telling in its tale of the life we live now, more impressive in its revelation, more persuasive in its teaching about the common things that matter so much to the individual and the community, than probably any other book that has been issued from the press this year.

LONDON: EDWARD LLOYD, Limited,
12, Salisbury Square, E.C.

TO SUBSCRIBERS.

REVISED SUBSCRIPTION RATES for the New and Enlarged Series of the "Municipal Journal" (commenced 3rd March).

FOR THE UNITED KINGDOM.
Post free.

Three Months	2s. 5d.
Six Months	4s. 9d.
Twelve Months	9s. 6d.

ABROAD.

Six Months	6s. 6d.
Twelve Months	13s. 0d.

Cheques and Postal Orders to be made payable to EDWARD LLOYD, Limited, 12, Salisbury-square, London, E.C., and crossed London and "Westminster Bank."

TO MUNICIPAL AUTHORITIES.

First-class Orchestras, Military Bands, and Concert Parties provided *at minimum rates* for every kind of function, or for Season.

J. HERBERT JAY,
10 & 11, Jermyn Street, Piccadilly.
Telephone—6534 Gerrard.

Demy 8vo, Cloth Boards, price 5s. net, post free.

RATEABLE MACHINERY

By GEORGE WASTALL, F.S.S., Rating Surveyor, &c.

Invaluable as a work of reference to Rating Authorities, Guardians of the Poor, County and Borough Councils, Railway, Tramway, Electric Lighting, Gas and Water Companies, Solicitors, Surveyors, Auctioneers Manufacturers, and all users of machinery.

London: Philip Allen & Co., 87, Chancery Lane, W.C.

"THE SCHOOL MANAGER."

A WEEKLY NEWSPAPER
FOR
EDUCATIONAL ADMINISTRATORS

ONE PENNY WEEKLY.

Indispensable to Members of Municipal and County Councils and especially to Members of Educational Committees.

SUPPLIED BY ANY NEWSAGENT.

"I consider it a marvellous educational pennyworth that ought to be in the hands of every educational authority in the country."—CHAIRMAN OF A TYNESIDE EDUCATION COMMITTEE.

"I am doing all I can to push THE SCHOOL MANAGER, which has more real, live news in it than any other paper."—SECRETARY OF A COUNTY BOROUGH EDUCATION COMMITTEE.

5 & 6, Johnson's Court, Fleet Street,
LONDON, E.C.

The Children's Breakfast.

Creamy Plasmon Oats

Require No Milk. Cooked in 4 minutes.

INFANTILE MORTALITY

AND

INFANTS' MILK DEPOTS

BY

G. F. McCLEARY, M.D.,

Medical Officer of Health of the Metropolitan Borough of Battersea.

Crown 8vo, cloth, with 27 full-page Plates, **6s.** net.

LONDON:

P. S. KING & SON,

ORCHARD HOUSE, WESTMINSTER.

The Cream of Cocoas.

EPPS'S

Contains all the nutriment

COCOA

of the Choicest Nibs.

MUNICIPAL JOURNAL

FRIDAY, MARCH 31, 1905.

NOTES AND COMMENTS.

Lord Avebury's "Remedies."

THERE was nothing very new in the address on "The Great Recent Increase of National and Municipal Expenditure" which Lord Avebury delivered before the London Chamber of Commerce on Tuesday. His figures were old, and his lordship laid down the proposition that "all monopolies were bad, and those of Governments and municipalities were worst of all, because they could not be controlled." "All," of course, must include private monopolies as well as State and municipal monopolies, and if Lord Avebury will show us how we are to get on without any of them we shall be pleased to listen to his demonstration. The monopoly in land, for instance, has not produced those benefits for the nation which Lord Avebury appears to think are inseparable from private ownership. The monopoly in telephones, too, is being ended by his lordship's own Government, which would not take so drastic a step as is proposed unless there were unanswerable reasons in its favour. Lord Avebury's "remedies" would hand over remunerative public services to the companies, a way out of the difficulty which even the Joint Select Committee was unable to recommend.

> Coming to the question of remedies, in the first line he would mention the axiom that taxation and representation should go together, that those who paid the rates should regulate the expenditure. The Chamber had over and over again suggested that companies should be permitted to vote, and the Associated Chambers had endorsed the proposal.
>
> This was well so far as it went, but it was surely a farce to give only one vote to, say, the Gas Light and Coke Company. Yet even this small modicum of justice, when proposed by Sir Albert Rollit, M.P., was vehemently opposed by the Socialists in the House of Commons.
>
> He would urge the adoption of the proposals of the Joint Committee of both Houses on Municipal Trading. But what was more important, and, indeed, a *sine qua non*, was that electors should return candidates pledged to economy.

There is at least one serious mis-statement in this interesting paragraph. The Bill to give companies votes was not withdrawn because "the Socialists opposed it in the House of Commons." The number of Socialists in that representative assembly is so small that any opposition they manifested could have easily been defeated had the desire of the majority gone in the contrary direction. The measure was withdrawn because the majority of members was against it.

An Impossible Proposal.

SUBJECT to this correction on a matter of fact, Lord Avebury's "remedies" are definite and worthy of examination. Companies should be given representation on municipal bodies *as companies*, and the strength of that representation should be in proportion to their wealth (Lord Avebury calls it "taxation," but it amounts to the same thing in the end). It would be, as Lord Avebury says, a farce to give one vote only to the Gas Light and Coke Company, with an authorised capital of £26,000,000, while the Commercial Company, with only two millions and three quarters, received one vote too. The votes would have to be apportioned according to the rateable values of the enterprises, and in the case of great railway concerns the councils would sometimes be completely dominated by those interests. What would happen? The railway companies would at once prohibit municipal tramways, which they complain already compete with their businesses. All the company interests in each town would combine, and every remunerative municipal service would be transferred to private hands. Lord Avebury calls this a "remedy"; we should describe it as sheer robbery, and even the present House of Commons, honeycombed as it is by rings of directors of all kinds, refuses to tolerate the prospect of so unjust a "reform." Lord Avebury forgets, too, that even local authorities pay rates, and that according to his scheme some of them might be entitled to representation on themselves! The position would be amusing, but hardly conducive to the proper administration of municipal affairs.

The Other "Remedies."

MANY people reading Lord Avebury's speech will probably think that the Joint Select Committee proposed reforms which the municipalities decline to accept. What really occurred, as our readers know, is that recommendations were made concerning audit whose greatest opponent is — the Local Government Board! During the Plymouth inquiry, the spokesman of the latter department flatly refused to agree to the application of the Joint Select Committee's audit, and insisted upon the adoption of his own discredited system. As we have said time after time, the local authorities themselves support—in fact, ask for—an efficient audit, and it is the Government which refuses to apply it. Lord Avebury is blaming the wrong people; the vials of his wrath should be emptied upon Mr. Gerald Balfour, not upon the innocent municipalities. His lordship's final remedy is the election to the municipal councils of candidates pledged to economy. Interpreted in the light of his previous remarks this means the return of men pledged to transfer the remunerative municipal enterprises to companies, and to refrain from voting for the establishment or acquisition of other concerns out of which companies could get dividends. Many results would accrue from this remedy. In the first place, rates would go up still higher, because they would have taken away from them profits that are now a source of relief; in the second place, charges for these services would increase, as the official figures prove that company concerns are less economically and less efficiently managed than are those run by local authorities (we leave out of consideration altogether the dividends that would have to be made and paid); and in the third place, the new concerns would cost more than municipal undertakings now cost, because companies are unable to get money so cheaply as are the local authorities. So that the nett result would be, instead of a decrease in the expenditure of the wealth of the country which Lord Avebury is supposed to be aiming at, there would be an increase, with a corresponding addition to the cost to the consumer of certain indispensable public services. The Chambers of Commerce may approve these so called remedies, but the average ratepayer will prefer going along as he is, until relief can be afforded him by spreading his burden over a wider area.

Ossett and the Power Company.

UPON several previous occasions we have called attention to the circularising ingenuities of the Yorkshire Electric Power Company, and another illustration of this organisation's pushfulness is before us in the shape of a letter which we understand has been sent round to the councillors of Ossett. The cause of the Power Company's activity is a very simple one. Instead of taking a bulk supply from the company, whose object is to establish a monopoly for itself, and to obtain for its directors and shareholders the many financial advantages which a monopoly would create, the Ossett Corporation proposes to carry out its own scheme in conjunction with a dust destructor. Obviously, if the Corporation does so, the Power Company will not sell current in Ossett, which will mean that to this degree the desired monopoly will not be obtained. The Power Company's letter

contains many remarkable statements calculated to mislead councillors who are not very well posted as to the present position of the electrical industry. One of them is that "a small station is not efficient, and the machinery so rapidly becomes obsolete that it has become the general opinion that the present rate of repayment of capital is too low." The assumption is, of course, that large stations are necessarily efficient by reason of their bigness, the fact being ignored that the same forces that make for efficiency in the one case must, if they be applied, produce proportionate results in the other. It is a new theory that plant becomes obsolete quicker in small stations than it does in large ones, and the Power Company may improve upon its suggestion in its next circular letter by insinuating that a point of bigness may be reached beyond which plant cannot become obsolete under any conceivable circumstances. The Yorkshire Power Company, like many other similar organisations, has evidently lost its capacity for solid argument in this craze for bigness that has overtaken it. It overlooks the fact that beyond a given point the aggregation of electrical machinery in a central spot does not make for economy, but rather the reverse. Cables cost money, and in the present stage of electrical development leakages are frequent, and both these items are increased proportionately with the distance between the point of distribution and generation. When a company, however, seriously suggests that plant becomes obsolete quicker in a small station than in a large one, its case is really beyond argument.

"Take our Current"—and After?

THE Yorkshire Power Company gives itself away in a paragraph we cannot refrain from quoting:—

> On the expiration of the agreement for a bulk supply, the local authority can, if they consider it desirable, add to their system a generating station of the most up-to-date type, and then, and only then, bring up their total expenditure to what it would have been had a generating station been erected in the first place, but with this important difference, their engines and machinery are new instead of being nearly worn out, and are of the size necessary to deal with the increased load instead of being small and inefficient.

Surely this is reducing "argument" to a farce. If the Yorkshire Power Company had waited twenty years instead of establishing its organisation when it did, it, too, would have had the advantage of any improvements that may by that time be effected in the electrical industry. Similarly, its machinery would then be as new as, under present circumstances, it will be old. There is nothing whatever in this argument except an invitation to the Ossett Corporation to be bled for the benefit of the Yorkshire Power Company for a term of years. When that period expires, the anxiety of the company in regard to "heavy local expenditure" will, presumably, have disappeared. This attitude, however, is only another illustration of the ingenuity of the Power Company's circular writer. Once fix up Ossett for a bulk supply, it would be the easiest thing in the world, as the company knows, to place the Corporation in such a difficult position that a municipal scheme at the expiration of the agreement would be a practical impossibility. The Ossett Corporation has adopted such a public-spirited stand against the Power Company up to the present time, that we have confidence in its withstanding the specious pleadings put forward in this latest epistle from the monopolists.

"The Borrowings Bill."

WE print in full on another page the reply of the managing director of the London Mercantile Chamber to our criticisms of his proposed Bill for restricting municipal borrowings. Mr. Worrall does not attempt to justify himself on the principal proposition laid down by his circular, which was that a legislative restriction of municipal borrowing would result in a decrease of rates. Instead of defending his Bill, he wanders discursively into many subjects, repeating well-known fallacies which have become the stock-in-trade of anti-municipalists. To merely state that the municipal debt has increased proves nothing, but Mr. Worrall is apparently of opinion that the London County Council's tramways have added to the burden of the rates in the metropolis. He is evidently unaware that these tramways, so far from increasing the rates, have reduced them by over a quarter of a million sterling since the lines came into the possession of the Council. At the same time they are being purchased on the instalment system, so that when the capital is paid off they will become the unfettered property of the ratepayers. The bias of Mr. Worrall is proved by his unfair use of last year's London tramway figures. He compares the leased system in North London, which resulted in a profit of nearly £28,000, with the "owned" system in South London, which produced a "loss" of £8,283, conveniently ignoring the fact that during the whole of the period concerned the South London enterprise was completely disorganised by the work in connection with electrification. Mr. Worrall makes a quotation from the paper read by Mr. Robert P. Porter ("an American") before the British Association at Belfast in 1902. We know Mr. Robert P. Porter, and his paper had no severer critics than the American journals, which regarded it as a ridiculous travesty of the real condition of affairs. To those of us who are aware of the revolt of Chicago against corrupt companies, and of the tremendous struggle that was made in New York to ensure even a modified form of public control over the new Rapid Transit Subway, and of the great increase in recent years of publicly-owned water and electricity enterprises in America, together with the active propaganda in favour of municipal ownership that is now being conducted by some of the ablest men in the States, the endeavour to exploit American opinion against us becomes particularly amusing.

The Chamber and the Shopkeeper.

IN its circular the London Mercantile Chamber, through its managing director, said that there should never be adopted such "a mean expedient" as that of "pushing up the shop assessment to increase the rateable value." Now Mr. Worrall says:—

> This allusion to the shopkeepers does not mean that I disapprove of their assessments being raised according to the improvement of their districts, but local private enterprise contributes extensively to the rates, and *consideration should be shown to those who are bearing the heaviest burdens of maintaining a district*. Municipal ambitions should not be allowed to ride rough-shod over an important class of ratepayer. Often when a local borough wants money, this policy of squeezing the largest local businesses is embarked upon via the assessments.

The key to Mr. Worrall's point of view, we think, is contained in the words we have italicised. We know that it is the general idea amongst shopkeepers that the districts in which they carry on their businesses would go to rack and ruin were it not for them (the shopkeepers), but the idea is a fallacious one. The districts maintain the shopkeepers, and not the shopkeepers the districts. Consequently, the greater the profits a shopkeeper gets from a district the greater should be his contribution towards the cost of maintaining that district. The "district" is always there first; the shopkeeper only goes to it when he thinks it is big enough and rich enough to provide profits for him. This objection of shopkeepers to paying rates is not only illogical, but impertinent. Mr. Worrall concludes by saying that Mr. Louis Sinclair's Ministry of Commerce and Industry Bill provides for the establishment of "a bureau of corporations to investigate the management of corporations, joint stock companies, &c." A jury composed of company interests, we suppose, to sit in judgment on municipal enterprises! That is like Mr. Louis Sinclair. If the London Mercantile Chamber regards the honourable member as a serious politician, it is the only organisation we know of that has done so.

TELEPHONES TRANSFER.

MANCHESTER PROTEST.

THE special committee *re* telephones of the Manchester City Council this week considered the agreement under which it is proposed that the property of the National Telephone Company shall be purchased by the Government.

Members in committee expressed the opinion that this was a hasty mode of dealing with a matter of such great moment to the commercial community, and that there should be further time given for an expression of the opinion of organised commercial bodies, as well as of corporations, who would be seriously affected. If, it was contended, the Glasgow Corporation could profitably give a service for five guineas, it must be an unwise proceeding on the part of the Government to purchase a plant and appliances which required so much higher a charge.

The committee decided to recommend the Council to petition Parliament against the undue haste with which the agreement was proposed to be carried through, and to ask that the Corporation representatives should be heard before the Select Committee to which it is proposed to refer the agreement.

ROUND THE UNIONS.—II.

Holborn's Poverty and What the Work of Mr. Long's Joint Committee Teaches. The Amount of Distress Much Exaggerated. Extraordinary Tales by the Unemployed. The "History Sheet" in the Workhouse and Valuable Work Accomplished. An Able-Bodied Workhouse which Resembles a Labour Colony. Paupers as Gas Workers. What is Being Done for the Children.

IN a Union like Holborn, extending as it does over the whole of the Borough of Finsbury, and over part of the Borough of Holborn, and comprising a population of 129,350 (1901 census), who are at the gates, as it were, of the great and wealthy City of London, it might be anticipated that there would be great and widespread poverty, especially during the last winter.

Moreover, every student of Poor Law administration knows that the policy of out-door relief which Holborn adopts is not "strict." In the *Times'* last yearly survey of the legal poor of London, Holborn is alluded to as being alone responsible for the increase of pauperism in the Central District of London, which comprises four unions, and which showed an increase last year of 182 paupers.

But anticipations have all been upset by the findings of Mr. Long's Joint Committee, *re* Unemployment. Before touching upon the purely poor law work of the Union, it will be enlightening to allude to the work of this Joint Committee, which, however, only extends over the Borough of Finsbury, with its 100,000 inhabitants. The committee is now enabled to report with accuracy as to the number of men unemployed in the borough. In the first instance a communication was addressed to each of the various religious, charitable, trade, and other associations, and to each of the managers and head teachers of schools, requesting them to furnish the names and addresses of persons in want of employment. The total number registered was 1,973.

There has been during the past winter so much heard of exceptional distress by unemployment, that it would be well to set out as clearly as possible the results of investigations into these two thousand cases. They are as follows:—

Number who did not reply to Joint Committee's letter, or did not attend to be interviewed ...	629
Letters returned through Dead Letter Office ...	103
Number who stated they had got work ..	194
Number yet to be interviewed and dealt with ...	3
	929

The real cases to deal with consequently numbered a little more than a thousand. Of these, employment was found by the Central Committee at Epsom, Garden City, &c., for 118; by the Finsbury Borough Council for 111; employment is still to be found for seven at Garden City, and for 33 by the Finsbury Borough Council. This accounts for 258. The following were considered "ineligible" by the committee.—

Single men and widowers without encumbrance ...	184
Separated from wife, no children dependent ...	15
Will not work in country	129
Married, but no family dependent	69
Casual labourers	56
Physically unfit	75
Not in need, having regard to earnings of family.	36
Character indifferent	61
Objected to inquiry	2
Withdrew application	7
Aged (over 60)	44
Employment offered, did not accept...	40
Employment given by Borough Council, but applicant gave up after one or two days' work ...	10
Employment given by Borough Council, discharged after trial as undesirable	18
Removed from address given	5
Resided outside borough, or had not resided within six months	35
	736

This scheme, of course, contemplated that only respectable men temporarily distressed owing to inability to obtain employment should be dealt with by the Joint Committee. All other cases (including those of a chronic nature, whether due to lack of employment or not), were left to the guardians and the ordinary charitable agencies, and persons of bad character (drunkards, &c.) were not dealt with. Unless the circumstances were very exceptional, employment was only found by the Joint Committee if the applicant had resided six months in the borough. If he had resided six months in London, but not in the borough, his case, if otherwise suitable, was given consideration.

Let us take a typical case of a man with a wife and three children. If eligible, the man would be given work, his wife would receive 10s. a week, the first child would be allowed 2s. per week, second child 1s. 6d., and third 1s. The husband would, of course, be maintained at the place at which he was working.

The Joint Committee had several deputations from the unemployed. It found that many statements were made which could not be substantiated. One man went before the Borough Council and said he knew of 700 or 800 who were out of employment. He was asked to submit names and addresses. He took a fortnight to do this, and then submitted 156 names, 102 of which had already been under the consideration of the Joint Committee. The remaining 52 were promptly dealt with, and it was ascertained that *five* were suitable for work.

The figures which we have set out are certainly surprising. Out of nearly 2,000 names, only 258 men were found to be eligible. It should in fairness, however, be admitted that in the cases of the 629 who did not reply, or did not attend to be interviewed, many of the addresses forwarded may have been inaccurate. But after making due allowances, these figures show that the cry of "exceptional distress," at least in Finsbury, has been very greatly exaggerated.

HOLBORN INFIRMARY.

The Holborn Union possesses an infirmary at Highgate, two workhouses, and barrack schools. During the last five years the average daily number maintained in these institutions have increased from 3,303 for the year ended Lady Day, 1900, to 3,445 for year ended Lady Day, 1904.

The out-door relief statistics of any union

A SICK WARD (CITY ROAD WORKHOUSE).

teach the most valuable lessons as to the policy of the Board. Unfortunately, no official figures are available as to out-door relief during any lengthened period, but we have it on the authority of the Rev. Edward Canney, who has been a great worker on the Board for very many years, that out-door relief has increased something like 20 per cent. during the last 20 years, although the population during that time has been diminishing. This, the reverend gentleman, it should be mentioned, regards as a perfectly legitimate increase. Before passing condemnation, it should be remembered that these twenty years have seen a great change in regard to the social position of the inhabitants. The population has been rapidly getting poor.

The explanation put forth officially to account for the increase during the last five years in the number of inmates in the various establishments is that the increase in the years 1903 and 1904 is attributable to the "general depression of trade in the country." "At such a time," it is further pointed out, "a number of men from the provinces come to the metropolis, and find shelter in the various lodging-houses, and a certain proportion eventually seek relief. The Holborn Union being centrally situated and containing a large number of lodging-houses, is, therefore, peculiarly liable to an increase in pauperism from this cause." There are twenty common lodging-houses in the Union, providing accommodation for more than 1,200 persons, and also a Salvation Army shelter at 25, Charles Street, Hatton Garden, and a Church Army Houseless Poor Asylum, at 6, Banner Street, St. Luke's.

These shelters, it is felt, largely increase the amount of pauperism in the Union. From these shelters alone a constant stream of men is poured into the workhouses.

The guardians made a "call-over" of the inmates of the City Road Workhouse in 1903, which elicited much valuable information. Other boards of guardians might emulate this bit of special work. The method adopted was to interview each person chargeable on a certain date, viz., 1st July, 1903, to record the statements made upon a "History Sheet," and afterwards to verify, as far as possible, the information given. Each person was also examined by the medical officer. There were 1,366 "History Sheets" dealt with, representing 1,483 individuals. Those returned as not able-bodied numbered 958, and able-bodied 196. The remaining 212 were not classified, having ceased to be chargeable before they could be examined by the doctor for the purpose of the call-over. In consequence of these inquiries twenty-five persons were removed to other unions and parishes under orders of removal, several of which had been chargeable for some years; fifty-five orders were made upon relatives, to contribute towards the maintenance of persons chargeable. Other cases were also subsequently dealt with. Such a work as this serves to discover leakages, and elicits information not always obtainable at the time of the admission of the pauper.

Here is a striking instance of how the call-over worked! A married woman had lived apart from her husband for many years. Upon questioning her, for the purpose of recording her antecedents on the "History Sheet," it appeared her husband was living somewhere in Marylebone. He was eventually traced, and requested to take his wife out of the workhouse. He refused, but upon pressure being brought to bear, removed his wife.

SHOEMAKERS' SHOP (MITCHAM WORKHOUSE).

Our illustration on the preceding page shows the exterior of the Board's very fine infirmary at Highgate, London, N. It has been in existence some twenty-eight years, and, though certified for 625 inmates, the accommodation at times in winter is not sufficient.

The Guardians' able-bodied workhouse at Mitcham is quite a little Labour Colony. Here some 200 people are engaged in following their ordinary callings. The men are engaged in such trades as carpentry, tinkering, painting, &c., and the women are chiefly employed in the laundry. The men make the gas for the schools and for the workhouses, and they also manage their own waterworks.

There are also old couples' quarters. These are pleasant little places. For each couple there is a private room, the walls of which are painted, and the old people are allowed to take their little belongings. The floors are carpeted, and there is to each room a tidy iron bedstead, and one or two other articles of furniture. The old people may boil water in their own kettle and make themselves afternoon tea. So comfortable do they seem, that many of them who had originally a great aversion to "go into the workhouse," admit that they are now quite happy.

The Guardians cannot be said to be very up-to-date in the treatment of their children. The barrack schools at Mitcham, certified for 429 inmates, have been in existence about thirty years. On the other hand, the Board has realised the great benefits of boarding-out children in suitable homes. About seventy are already in homes outside the Union, and the Guardians are now in negotiations with several unions to board-out others. Of course, only certain classes can be boarded-out in this way, even after suitable homes have been found—which is far from an easy task—and we trust that the Board will see its way clear to abolish these barrack schools, the evils of which have been so ably exposed by Mrs. Barnett, of Toynbee Hall, in the columns of our recent issues.

The Guardians possessed a workhouse in Gray's Inn Lane, but this was given up some seven years ago. It is interesting to notice that this was part of the land acquired by the Holborn Borough Council which is heard so much of in connection with the prosecution of the ex-Town Clerk. New casual wards, on the cell system, have here been built.

The Guardians are fortunate in the possession of such a worker as Mr. J. Allan Battersby, Clerk to the Guardians, who is also joint secretary with Mr. A. H. Paterson to the Joint Committee of the unemployed. Mr. T. J. Bolton is the hard-working Chairman of the Board.

"THE PAUPER CHILD."

(*To the Editor.*)

SIR,—Adverting to Mrs. Barnett's article on "The Pauper Child," in your issue of the 17th inst., wherein that lady states that the cost per head per week of the children maintained at the Stifford Homes of this union during the half-year ended at Lady Day, 1903, was 23s., will you kindly permit me to qualify that statement by adding that the partieular half-year was the first during which the homes had been occupied, and that the expenditure was necessarily abnormally heavy, ineluding the large initial eost of furnishing the homes, the procuring of a stock of elothing, implements for the farm, &e., and also the large sum of £867 19s. 6d. interest on loans, which latter item of itself aceounted for 3s. 7 6-10d. per week out of the 23s.

The report from whieh Mrs. Barnett, presumably, obtained her figures, eontained explanatory notes upon the subject, and if such notes had been quoted, it would have shewn the reason for the abnormally high cost during the period in question.

The weekly cost per head during the sueeeeding year was 15s. 6 1-10d., and there is reason to expect that that rate will be found to have been further reduced when the accounts for the year ending at Lady Day next are made up.

It is true that the eost of "village communities," as they are administered now-a-days, is heavy; but it seems to me to be hardly fair to select a partieular period when, from unavoidable causes, the expenditure was at its maximum, for the purpose of making out a ease in favour of other systems.—Yours, &c.,

S. A. Lewis (Clerk).

Guardians' Offices, Barnes-street,
Commereial-road East, E.,
18th March, 1905.

(*To the Editor.*)

SIR,—If Mrs. Barnett's paper, published in the Municipal Journal of 17th and 24th Mareh, is to be taken as an example of the publie pronouneements of the State Children's Association generally, one can easily see why many who are more closely connected with Poor-Law work have ceased to take notiee of that body's propaganda.

That your readers may have the facts put before them, and that justiee may be done to those more immediately eoncerned, I desire to point out the inaeeuracies of that portion of the paper which refers to the Central London (Hanwell) District Sehool. Mrs. Barnett states that a medical report on these schools, issued in February, 1902, showed:—

1. That 520 out of 1,000 children could not pass the whisper test.
2. That 335 were, or had been, the subjects of diseharge from one or both ears.
3. That 88 of them went in danger of their lives from ehronie suppuration.
4. That 434 had adenoids.
5. That after receiving this report the authorities proposed to increase the number of children "aggregated" in this sehool; and
6. That 88 children in danger of death were rescued by the observation of an outsider.

This eatalogue of evils is put forward by Mrs. Barnett as resulting from what she delights to eall the "barraek school" system. To refresh my memory, and to make quite sure of my facts, I have spent a considerable amount of time in examining the report-book of the medical officer of Hanwell Schools, and I am, therefore, in a position to assess Mrs. Barnett's statements at their true value. I will take them seriatim.

1. The whisper test. The writer of the paper did not explain that this means the hearing of a quiet whisper at a distance of 18 feet.

2 and 3. Of these eases, 50 out of the '88 in danger of their lives" were under treatment by the medical officer at the time of their examination by Mr. Cheatle (from whose report Mrs. Barnett quotes), and many others had been under treatment. Other eases, again, were so slight as to escape observation by the medical officer, and could only be detected by expert examination. It is important to add that during thirty-four years there has been but one death at the schools from ear trouble, and this was in the case of a boy who was suffering from suppuration on his admission. All the cases suggested by Mr. Cheatle were sent to the hospital, but in no ease did the surgeon consider a serious operation neeessary. So much for the "danger of their lives."

4. The proportion of children suffering from adenoids was not a diseovery made by Mr. Cheatle. For some years the managers had sent children arriving at the school so suffering to the hospital for treatment.

5. It is diffieult to give in polite language a proper reply to the statement that "after receiving this report, the authorities proposed to increase the number in this school." I think Mrs. Barnett is in honour bound to give some proof of the statement, or aeknowledge it to be an error—inexcusable, as I think.

6. "Eighty-eight children in danger of death were rescued by the observation of an outsider" at his own request. This ean only mean that, but for an aeeidental visit of an expert, these children would have been left without treatment. So far from this being the faet, let me state that Mr. Cheatle's visit was in response to an invitation of the medical offieer, who, at the request of the managers, wrote to ask him if he would see certain deaf girls at the hospital. The reply to this invitation was that Mr. Cheatle would like to see all the children, and the medieal officer naturally seized upon the opportunity of getting an expert's opinion.

Now, a very important question arises: Are these ear troubles due to the residence of the children in district schools? Mrs. Barnett would have us believe that they are. But Mr. Cheatle (whose report forms the basis of Mrs. Barnett's attaek) is not of that opinion. At a meeting of the Otological Society at King's College Hospital, on April 14th, 1902 (two months after his visit to Hanwell), Mr. Cheatle stated in his paper that he found about the same proportion among the children attending as out-patients at that hospital. Dr. Permewan found about the same proportions in an examination of school children at Liverpool. And if further proof be needed that the diseases are not peculiar to the school, it ean be found in the proportion of new admissions with ear and throat troubles. Indeed, everything points to the opposite direetion; and I think it may fairly be contended that, but for their residence in these schools, and being thus brought under the eareful observation of a thoroughly experienced medieal man, many of the cases alluded to would never have been able to get remedial treatment, because their ailments would have remained undiscovered.

I have dealt at some length with this matter, but the interests of justice and truth demanded that serious and damaging statements should be met by facts. Poor law guardians and district school managers are so aeeustomed to ealumny as their reward for public work, that consideration for them is of no eonsequence, but it is a very different matter with responsible paid officials. The reputation of the medical offieer of Hanwell School may be a matter of no concern with the State Children's Asseiation; but the publie generally desires its servants to receive fair treatment.

If the remainder of Mrs. Barnett's paper is as full of inaecuracies and exaggerations as that portion relating to Hanwell Schools, it is not only valueless, but mischievous.

A MANAGER.

"RATING OF SITE VALUES."

(*To the Editor.*)

SIR,—In the eolumns of your paper of the 17th instant, I notice eorrespondenee, signed "J. H. Wheeler," on the above-named subject. I have invariably noticed that the objeetion taken to land value taxation is more imaginary than real. I never really made any study of the question till I went out to Australia, and after nearly twenty-three years' residence in that country, I am thoroughly eonvineed it is the most just system of taxation. I have been frequently told, when in Australia, that because I did not own land I wanted to have it taxed. Sueh a statement is perfeetly erroneous. I should only be too glad to own land, and pay taxation on it. If all borough and urban eouneils were empowered to raise their revenue by a tax on land values, instead of a tax on property, they would be mueh better financially, generally.

Land value taxation would make it unprofitable to let land lie idle, and would most justly tax the real source of wealth. It has done immense good in New Zealand and in several of the Australian States (South Australia and New South Wales), and I am quite sure it would do an immense amount of good in this country.

Yours, &e.,

J. R. MAJOR.

14, Lochaber Road,
Lee, S.E.

HEATING OF BUILDINGS & HOT WATER SUPPLY

FROM LIVE OR EXHAUST STEAM.

The Latest and Best Appliance is

ROW'S PATENT CALORIFIER

Combined with AUTOMATIC STEAM CONTROL (Royles' Patent)

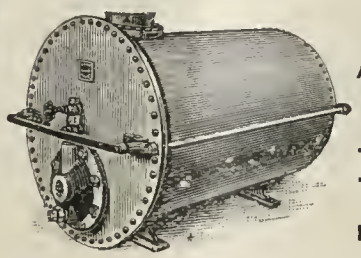
Adopted by the Metropolitan Asylums Board, London County Council, Manchester, Liverpool, Glasgow, Edinburgh Corporations, and others, for Bath Supply.

COPIOUS SUPPLY, UNIFORM TEMPERATURE.

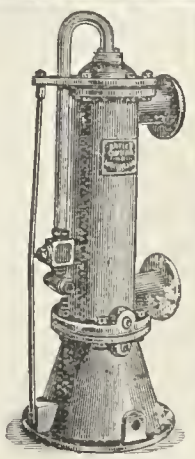
ROYLES LIMITED, IRLAM, near Manchester.

ALSO MANUFACTURERS OF

Feed Water Heaters, Condensers, Evaporators, Steam and Gas Kettles, Syphonia Steam Traps, Reducing Valves, Oil Separators, Exhaust Heads, Boiler Mountings, &c., &c. Price and full particulars on application.



Storage Calorifier for Baths.



Vertical Calorifier for Hot Water Circulation.

LEEDS TRAMWAYS SUCCESS.

THE financial year of the Leeds Corporation, which closed a few days ago, shows that the receipts of the tramways department for the twelve months have been £295,000, an increase of about £17,000 on the previous year. Although the mileage is practically the same as it was two years ago, the past year's increase is nearly £2,000 more than for the year 1903, when the increase reached £15,221. The past year's figures are interesting, as showing not only that there will be a very substantial profit—in spite of the depression of trade that has been generally felt in the city—but also that the cheapening of fares in many directions has been accomplished without any financial loss. Of a total of 64,223,666 passengers, 4,781,417 paid a halfpenny, 50,778,052 a penny, 1,424,136 three halfpence, 6,150,880 twopence, and 1,089,181 threepence. During the preceding twelve months, the total was 60,739,234, or 3,484,432 less fares. When the expenditure side of the account is made out, it is hoped that the balance of profit will be nearly, if not quite, as great as it was a year ago, when the handsome sum of £52,000 was handed over to the relief of the rates.

EAGLE INSURANCE COMPANY.

AT the annual meeting of the Eagle Insurance Company, held this week, Lord Cottesloe, the chairman, pointed out that the report for the year 1904 was thoroughly satisfactory, and that a very great advance had been made in the position of the company during the twelve months. The total new policies issued amounted to £602,399, as against £561,784 in 1903; reassurances had also greatly increased. The net new premiums amounted to nearly £20,000. The nett result of the whole year's business was quite on a level with the previous year, which was a record year, showing an increase of 50 per cent. over the average of the previous ten years.

In other respects, the company is in a prosperous condition. The consideration for annuities is £55,352, as compared with £22,171, and the claims on decease of lives £190,997, as compared with £248,288. The amount of interest was well maintained during the year, being £3 16s. 8d., after setting off income-tax. The ratio of expenses to management and commission, taken together, to the nett premium income remains at 17.8.

The company adopts the very healthy and safe policy of writing down its Stock Exchange securities to the mean market price. "With prices written down to such a low figure, these securities," said the Chairman, "can hardly fail in due course to yield a profit at some future time: indeed, there has already been a marked improvement since the beginning of the year." The total funds of the company now amount to over 2½ millions. On the whole, the Eagle report is a very encouraging one for the ensuing year.

THE NATIONAL ELECTRIC CONSTRUCTION Co., LTD.,

ELECTRIC LIGHT, POWER & TRACTION ENGINEERS.

CONTRACTORS TO H.M. WAR OFFICE, OFFICE OF WORKS, GENERAL POST OFFICE, &c.

Head Office: 34, VICTORIA ST., WESTMINSTER, LONDON, S.W.

Telegraph Address: "OVERHAULED, LONDON." Telephone: No. 5134 GERRARD.

Complete Town Lighting Schemes carried out for :—

BO'NESS, N.B. MUSSELBURGH, N.B. (Tramways and Lighting). CARNARVON. HOLYHEAD. KILDARE (IRELAND).

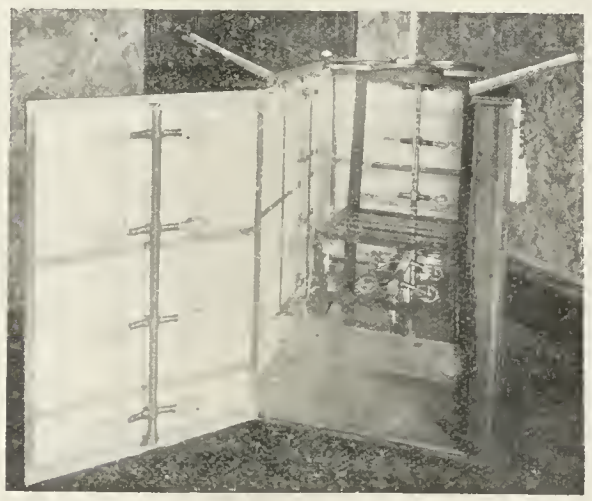
Agreements Completed with the following Local Authorities :—

BASINGSTOKE, ORMSKIRK, PAIGNTON WISBECH.

The "SUNBEAM"
ELECTRIC LIGHT BATHS

FOR THE TREATMENT OF

GOUT, RHEUMATISM,



SCIATICA, LUMBAGO, &c.

The "**Sunbeam**" Cabinet Bath has been specially designed for home use, and its construction is so simple that no attendant is needed, wherefore it can be recommended as the healthiest and simplest form of Domestic Turkish Bath.

The "**Sunbeam**" Electric Light Baths are very economical in use, owing to their low consumption of current. Taking 15 minutes as the average duration of a bath, the cost at 3d. per unit will be 1¼d.

Semi-Reclining Bath, with 50 Incandescent Lamps	£36 0 0
Cabinet Bath	from £15 0 0
Portable Baths for local application	from £3 10 0

All Baths are made in London by the Manufacturer and Patentee.

C. M. HOLMQUIST,

From whom full particulars can be obtained and the Baths seen in operation at

57, EDGWARE ROAD, LONDON, W.

DIALITE

THE

STANDARD

CABLE

FOR ALL

PURPOSES.

THE ST. HELENS CABLE CO., Ltd.,

WARRINGTON.

ELECTRICITY SUPPLY.

What Is the Specific Use of a Transformer? The Extra Expense Entailed By Having to Insulate Mains for High Pressure Less than the Saving Effected By the Use of Small Mains. A Satisfactory State of Affairs at Huddersfield as Shown by the Latest Returns. The Position at Barnstaple. Volt Meters and Registration.

ONE of the undertakings publishing accounts to the end of December in each year is Huddersfield, and the returns for the last twelve-monthly financial period show a satisfactory state of affairs. The general position for the year is given below:—

The revenue derived from sales of current &c., amounted to	£25,506
And the working expenditure to	12,044
Leaving a gross profit of	£13,462
Out of this sum the following requirements were met:—	
Interest on mortgage debt £4,995	
Redemption of debt 5,492	
Instalments repaid 1,327	
Interest on deposits 9	
Bad debts 52	
Total of capital and special charges —	9,875
Surplus upon year's working	£3,587
To which was added the interest received from bank, amounting to...	288
Making a total surplus of	£3,875

❦ ❦ ❦

Huddersfield.

TAKING the interest received as a revenue item, and deducting the bad debts from the receipts, the amount of the income is shown in the next table. Huddersfield is one of the earlier stations, and for many years was run with the alternators connected to separate mains, instead of being coupled together in parallel on the omnibus bars of the works. This has given place to parallel running, which must be conducive to economy. Alternating stations of the older type are handicapped in the costs by having to produce electricity with plant much less economical in steam consumption than that now used, but to go in for wholesale scrapping would involve writing off a large sum for depreciation in the plant so discarded, although in the long run it would probably prove an economy.

Huddersfield.	Units.	Yielding	Per unit.
Private consumers took	1,489,297	£22,763	= 3·668d.
Public lamps consumed ...	98,577	754	= 1·836d.
Interim total	1,587,874	£23,517	= 3·554d.
Meter rentals...	—	1,401	= ·212d.
Sale of lamps, &c.	—	88	= ·013d.
Hire of motors, &c.... ...	—	448	= ·068d.
Interest received	—	238	= ·044d.
Total receipt ...	..1,587,874	£25,742	= 3·891d.

The maximum load was equal to 1,570 kilowatts, representing a load-factor of 11.54 per cent. upon an installed capacity of plant of 3,290 kilowatts. Owing to the small public lighting load and the separation of the traction system from the general supply, the load-factor is low, and the capital charges consequently amount to nearly 1½d. per unit.

❦ ❦ ❦

Appropriation of Money.

THERE are 38 arc lamps taking 600 watts each, and 47 incandescent lamps for public lighting of 32-c.p. each. The arcs are charged at the rate of £17 10s. per annum each, and the incandescents at £1 13s. yearly. There are 150 motors connected, having a total of about 500-h.p., and supply for these is charged at 2d. per unit for the first 300 hours' use of the motor half-yearly, and the remainder at 1d. per unit, or with a minimum guarantee of 1,200 hours per half-year at half the full load. The uniform rate is 1d. per unit. Lighting is charged at 4½d. per unit, with a scale of discounts reaching 15 per cent. for a consumption of 6,500 units in the half-year, in addition to a 5 per cent. discount for cash.

The sum received was taken up and appropriated thus:—

	Amount.	Per unit.
Works' costs	...£9,017	= 1·363d.
Rates, taxes, and management.	2,794	= ·422d.
Total cost	...£11,811	= 1·785d.
Public lamp maintenance ...	233	= ·036d.
Gross cost	...£12,044	= 1·821d.
Interest charges	5,004	= ·756d.
Redemption and repayments...	4,819	= ·728d. } 1·484d
Total actual cost of units sold	...£21,867	= 3·305d.
Add surplus for year	3,875	= ·586d.
Gross receipts	...£25,742	= 3·891d.

❦ ❦ ❦

Barnstable.

THE Borough of Barnstaple is one of the Devonshire towns largely resorted to in summer by visitors; but it is not in an exceptionally favourable position for electricity supply either as regards fuel supplies or output and load-factor. To find that the works,—which have been constructed under the Provisional Order of 1900, and have completed their second year of operation, show accounts which record a loss of only £25, after allowing for interest and all other financial charges, is most creditable to all concerned in the management. The accounts we now summarise cover the period to the end of December last, and in that time the output has been almost doubled. For the previous year, the sales amounted to 76,824 units, against 145,014 units last year, an increase of 68,190, while the maximum load rose from 125 to 180 kilowatts only. This growth is one which renders the prospects before the undertaking most favourable, and when later it is found possible to reduce the prices charged (6d., 5d., 3d., 2½d., and 2d. per unit), there should be a large accession of custom. The load-factor in 1903 was only 7.6 per cent., but last year had risen to over 9 per cent.—still exceptionally low. This, in itself, is a sufficient excuse for the cost figures and the high capital charges. The general character of last year's results are:—

The revenue derived from the sales of current, &c., amounted to	£3,085
And the working expenditure to	1,820
Leaving a gross profit of	£1,265
Out of this sum the following requirements should have been met:—	
Interest on mortgage debt	£725
Sinking fund and repayments ...	565
Total of capital charges ...	£1,290
Deduct gross profit as above... ...	1,265
Deficiency for year 1904	£25

❦ ❦ ❦

Details.

THE only point to which criticism could be directed in the revenue account is the rate given for public lighting. It is certainly high, and unless the lamps are turned out partially or wholly at a time before dawn, or the lighting is run on a moonlight schedule, it would seem that one of the first things to which the Council could devote attention is a reduction in this rate.

Barnstaple, 1904.	Units.	Yielding.	Per unit.
Private consumers took ...	68,863	£1,255	= 4·374d.
Public lamps consumed ...	76,151	1,603	= 5·052d.
Interim total	145,014	£2,858	= 4·730d.
Meter rentals	—	33	= ·055d.
Sales of lamps, &c.	—	194	= ·321d.
Revenue in all	145,014	£3,085	= 5·106d.
Units used on works... ...	55,876	(The maximum load was 180 k.w., equivalent to a load factor of 9·197 per cent.)	
Total accounted for	200,890		
Utilised on distribution ...	19,232		
Total units generated .	220,122		

The amount received was taken up and allocated thus:—

	Amount.	Per unit.
Works cost	...£1,219	= 2·017d.
Rates, taxes, and management .	525	= ·869d.
Total cost	...£1,744	= 2·886d.
Public lamp maintenance ...	76	= ·126d.
Gross cost ...	..£1,820	= 3·012d.
Interest charges	725	= 1·200d. } 2·135d.
Sinking fund charges	565	= ·935d. }
Total actual cost of units sold	£3,110	= 5·147d.
Deficiency on year's working .	25	= ·041d.
Revenue in all.. ...	£3,085	= 5·106d.

Owing to the somewhat restricted output at present, the capital charges are heavy, and exceed the works cost. It is in this feature that small stations in their early days find it difficult to satisfy the committee of management, and we believe that the above mode of presenting results possesses the advantage over that adopted by the technical journals, of showing exactly the relationship between the engineering and financial expenditure. After all, it is the total actual cost which has to be met, and the major portion of this is often beyond the control of a resident engineer.

❦ ❦ ❦

Replies to Queries.

A CORRESPONDENT asks us to help the consumers of electric current by giving information on some points which he thinks would be of great public service. We are always ready to assist our readers in any direction which they may indicate, and it is a very great aid to the treatment of suitable subjects when correspondents are able to suggest matters upon which enlightenment is desired. The first question is, "What is the specific use of a transformer?" As the inquiry comes from a district in which the local authority is working on the alternating high tension system, it obviously relates to the transformers used to convert from a primary high pressure of about 2,000 volts to the low tension distribution pressure of 100 or 200 volts. The specific use of the apparatus is to enable the works to generate at a high tension, and deliver the electrical energy by feeder mains to sub-stations scattered throughout the area of supply, wherein the transformers are placed, and from which the distributing mains radiate, carrying a supply at a low pressure for the use of consumers, whose service lines are connected to the distributors by joint boxes under the footway. The advantage of high pressure consists in the economy which results from the employment of a small current and a high pressure instead of a large current and a low pressure, inasmuch as the size of the cables is fixed by the current they have to carry. Again, the maintenance of a steady and uniform voltage becomes possible only when either the cables are very large or the percentage loss of pressure in passing along the mains is small. The higher the pressure the smaller will be the percentage loss of pressure for a given current in a given main. The extra expense entailed by having to insulate the mains for high pressure instead of for low is less than the saving effected by the use of small mains.

❦ ❦ ❦

A Technical Question.

ANOTHER question asked by a correspondent on the subject of alternating supply is, "Should volt-meters be placed in the transformer chambers?" Volt-meters which merely indicate the pressure are of no use in transformer chambers, unless means are also provided for regulating the pressure and an attendant is kept in each to look after the regulation. But it is very important that the pressure should be maintained within the Board of Trade limits of four per cent. of the "declared" value, and to effect this requires means by which the attendant at the generating station can keep a continuous check upon variations of pressure throughout the district of supply. Merely to know that such variations occur is not sufficient, but apparatus must be

added which will allow of the pressure sent out on each feeder to be adjusted with the alterations in the load, so that the voltage on the feeding points or in the transformer chambers may be kept at something like a uniform value. Unfortunately, although pilot wires are generally used on low-tension systems, their employment on alternating systems is anything but common, although a decade and a half ago the American manufacturing companies provided apparatus which effected the same result. It is useless, therefore, to argue that such pressure variations could not have been foreseen, or that it did not appear necessary to take precautions against their so affecting the supply as to become a nuisance to consumers. Failing pilot wires or compensated volt-meters, a recording volt-meter may be placed in a sub-station and the chart removed daily by an attendant. This would enable the engineer to see what variations occurred locally, and if different chambers were taken on different weeks, the record would serve a very good purpose, and the expense entailed would be trivial. To ignore the whole question, however, is to jeopardise the standing of a municipal supply with the public.

❦ ❦ ❦

Variations of Current.

WE are also asked: "Do volt-meters register, by charter or map, the variations of electric current supplied to the consumer, and is it the duty of the electrical engineer to lay before the Lighting Committee the register of such volt-meters?" As we have already shown, there are patterns of pressure-recording instruments to be had, that is, volt-meters which trace on a slip of paper, by means of a pen attached to their pointers, the record of the pressure continuously throughout the twenty-four hours. The ordinary type of volt-meter is an indicating or inspectional instrument. Recording instruments of good quality are expensive, but are an integral part of the equipment of a central station, as it is only by their aid that a check can be kept upon the working of an undertaking when the chief engineer does not happen to be in or about the works. Also, they are the only alternative to pilot wires to the sub-stations, and a third use is to definitely settle the reasonableness or otherwise of any complaints received from consumers respecting bad light: by leaving such an instrument for a few days connected to the house-end of a service, the exact character of the supply delivered from the mains can be gauged. The second portion of the question raises a subject which is decidedly controversial. The duty of a municipal electrical engineer is to do such things as ensure a satisfactory and reliable supply. If he can achieve his ends by ordinary means, we suppose there is no necessity to appeal to, or bring the matter before, his committee, and mere routine matters are best dealt with by him as manager of the undertaking. But it is a wise course to mention complaints received to his committee, and show how they are dealt with. It may very well be that the troubles cannot be got over without expense, and in this case the committee must vote the money: a thing they will not do, naturally, without knowing all the facts. But we do not consider it the business of a committee to inspect recorder-sheets any more than the daily log-sheet: these are matters of routine which pertain altogether to the engineering department.

ABOUT BOOKS.

GERMAN MUNICIPAL INSTITUTIONS.

GERMAN municipalities have made immense progress since the creation of the Empire, not only in the growth of the cities themselves, but in the development of their institutions. Last year an exhibition was organised at Dresden, to show, by means of exhibits, what had been accomplished. Two volumes have now been published as a result of that exhibition, giving an account of the progress of German municipalities since 1870. Different sections of the exhibition were allotted to exports, and the book gives a most comprehensive and authoritative review of progress during the last thirty years. The editor in chief was Dr. Wuttke, but each section has had its editor and its expert. The success of the exhibition and the publication of the volumes are due largely to the enterprise and ability of Chief-Burgomaster Bentler, of Dresden, who is the president of the municipal exhibition.

The work consists of two volumes, one containing letterpress descriptive of various municipal institutions, and the other is a volume containing views, plans, sketches, diagrams, statistical tables, &c. The subjects dealt with include the whole scope of municipal work; for instance, we have accounts of the constitution and administration of German towns, architectural problems, and admirable building regulations, all of which are faithfully carried out; the protection and encouragement given to art to be found in the great picture galleries, the municipal opera-houses and theatres, the electricity, waterworks, and gas supply are all dealt with fully in separate chapters.

Of special interest to English readers should be the account of the way in which German cities manage municipal slaughter-houses, hospitals, and the care of their poor. We are able to trace also a great development in savings banks and loan offices, including that useful institution, the municipal pawnshop. The education systems under the control of the municipalities naturally have considerable space, and we can learn much from the way in which German cities deal with epidemics, from their life-saving systems, fire brigades, and in other departments.

The second volume will be of special interest to our municipal surveyors, as the plans are illustrative of all different institutions, engineering works, &c., in the German towns. The volumes, which should find a place in our chief town hall libraries, are published at Leipzig by Friedrich Brandstetter.

Our English municipal mayors, councillors, M.P.'s, and others interested in public work will, themselves, have an early opportunity of inspecting representative German cities, as a tour is being organised by the committee for the Study of Foreign Municipal Institutions, to take place during the Whitsun holidays. The president of the committee is Lord Lyveden. Last year a visit was paid to the St. Louis Exhibition, and the committee later made a tour of the Northern capitals of Europe. This year it is proposed to visit Antwerp, Brussels, Aix-le-Chapelle, Cologne, Berlin, and Dresden. Arrangements have already been made by the officials of these cities and the German Government, and every facility will be offered for a thorough examination of the municipal institutions in each case, while there will be sufficient time to pay attention to other interesting sights. Perhaps the best feature of this trip is that it is not sought to cover too many towns. So far as Germany is concerned, Aix, Cologne, Berlin, and Dresden will be most interesting from the municipal point of view, and there will be plenty of opportunity to make the visit profitable as well as interesting. Intending visitors who wish to join the party during the Whitsun holidays should communicate with Sir Thomas Pile, Bart., ex-Lord Mayor of Dublin, Dunstan House, Mark Lane, E.C., who is acting as honorary secretary of the committee.

SANITARY INSPECTORS' HANDBOOK.*

NO sanitary inspector who is *au fait* with his duties should need an introduction to this exceedingly useful volume. The present edition has been thoroughly revised, and additional illustrations have been supplied, and the text and index amplified. As a means of reference, and of comparison of the law of Public Health, as applicable to England and Wales, and to the metropolis, the second edition contained an alphabetical synopsis of the provisions of the two principal Acts; whilst two tables were added which showed the Acts affecting sanitary inspectors generally. To this synopsis the provisions of the Public Health (Scotland) Act, 1897, have been added in a separate column; and the bye-laws of the London County Council relating to the construction of drains, water closets, soil pipes, and to the depositing of drain plans, have also been inserted.

LAST week, a bureau, established under the auspices of Dudley Corporation, for the purpose of acting as a medium between the unemployed of good character and masters requiring workmen was opened at the Weights and Measures Office.

* Taylor's "Sanitary Inspectors' Handbook." Fourth edition. H. K. Lewis, 136, Gower Street, W.C. 6s.

J.G.WHITE & COMPANY, LIMITED.
ELECTRICAL, MECHANICAL & CIVIL ENGINEERS
GENERAL CONTRACTORS
22A, COLLEGE HILL, CANNON ST LONDON, E.C.
TELEGRAMS "WHITTERICK · LONDON" TELEPHONE · 6044 & 6045 · BANK

"MUNICIPAL JOURNAL" ANALYSES OF ELECTRIC TRAMWAY ACCOUNTS.

1903-4.

	Population.	Date tramways started.	Length of street route.	Gauge.	Capital outlay.	Number of passengers carried.	Number of car miles run.	Total receipts.	Working expenses.	Percentage of expenses to receipts	Nett receipts.	Percentage of nett receipts to capital.	Interest charges and lease rentals.	Repayment charges.	Surplus (+) or loss (−).	Provision for depreciation and reserve.	Contribution to rate fund.	Traffic receipts per car mile.	Expenses per car mile.	Average fare per passenger.	Electricity supplied by	Number of B.O.T. units used.	Price paid or cost of electricity per unit.
			Miles.	Ft. In.	£			£	£	%	£	Per cent.	£	£	£	£		d.	d.	d.			d.
Aberdeen ..	165.000	Aug., 1898	14·14	4 8½	314.407	15.538.167	1,379,723	64.071	37.054	58	27.017	8 59	10,389	2.397	+14,231	14.231	nil	11 00	6 45	98	Elec. Dpt.	1.525.708	1·52
Ayr	33.000	Sept., 1901	5 69	4 8½	71.775	3.316.380	353.945	14,334	7 622	53	6.712	9 35	2.303	891	+3.518	3 518	nil	9·46	5·17	1 01	Elec. Dpt.	324.157	1 30
Birkenhead ...	113,300	Feb.. 1901	13 52	4 8½	345,960	11,327.932	1 349.701	55,946	34.748	62	21.198	6·13	10,538	8.777	+1,883	1,883	nil	9·72	6·18	1·16	Own wrks	2.128,607	·72
Blackpool ...	50,000	1885	9·62	4 8½	267,178	6 357,218	735,103	42,061	27.873	66	14.188	5·31	8 422	5 713	+53	nil	nil	13·50	9·10	1·56	Elec Dpt.	1.008.529	1·83
Blackburn ...	188 000	1887	14 13	4 0	320.203	7,742.692	951,484	44,682	29 369	66	15.313	4·78	8,818	11.633	—5.138	nil	nil	10·94	7·41	1·34	Elec. Dpt.	1.785,712	1·50
Bolton	171.100	Jan., 1900	25·13	4 8½	504,509	19.895,496	2 188.030	95,096	54.716	58	40.380	8·00	12.233	13 654	+14.493	12.233	2.260	10·33	6·00	1·14	Elec Dpt.	3,098,292	1·25
Bournemouth ...	60 000	July. 1902	12·25	3 6	257.812	9.363 985	1.022,164	54.397	30.276	56	24.121	9·36	9.051	7.336	+7.734	nil	nil	12·31	7·11	1·34	Own wrks	1 601.039	·86
Bradford	324,000	July, 1898	48·52	4 0	818.205	39,639,44	4.546.942	197.438	135.869	69	61.569	7·52	*48,169	—	+13 400	2.917	nil	10·20	7·17	1·17	Elec. Dpt.	7 731.563	1 05
Brighton	123.500	Nov.. 1901	9·95	3 6	242.811	10.999.046	1,151,477	46.264	40,356	87	5.908	2·43	7,199	3,488	—4.779	nil	nil	9·60	8 41	1·00	Elec. Dpt.	1,774,988	1·50
Burnley	154,000	Dec., 1901	10·77	4 0	176,468	7,514,063	896,397	43,738	30,644	70	13,094	7·42	6,132	3,426	+3,536	3,536	nil	11·58	8·20	1·38	Elec. Dpt. & Nelson Crp.	1,461,700	1·79
Burton-on-Trent.	52.000	Aug.. 1903	5 74	3 6	82.500	2.566,134	282 378	11,943	8.919	75	3.024	3 67	1,533	773	+718	718	nil	9·84	7 58	1·08	Elec. Dpt.	362.827	1·46
Cardiff	168,000	May. 1902	14 63	4 8½	687,222	23,574,204	2 643.762	105.017	65 351	62	39.666	5·77	19.219	14,084	+6.363	403	642	9·24	5·93	1·04	Own wrks	5.896 506	·45
Chester	39.000	April, 1903	2·50	3 6	66,098	2,002,835	260,785	8.916	5,332	60	3,584	5·42	2,026	1,218	+340	nil	nil	8·17	4 91	1·06	Elec. Dpt.	239.072	1·75
Darwen	40.000	Oct.. 1900	4·36	4 0	79.272	2,236 102	253.345	12 371	8 413	68	3,958	4·99	2,411	1.982	—435	1.050	nil	10 92	7·97	1·24	Elec Dpt.	422 583	1·71
Dover	42,000	Sept., 1897	3·00	3 6	41,850	2,871,332	280.901	11.839	8.714	74	3,125	7·47	*2,205	—	+920	nil	nil	9·63	7·45	·94	Elec. Cpy.	319.413	2·75
Dundee	163,000	July, 1900	12 65	4 8½	263,382	11.420,985	942,969	44,437	28,521	64	15.916	6 04	6,837	5.000	+4 079	2,842	nil	11·15	7·56	·92	Elec. Dpt	1,661,721	1·49
East Ham ...	104.000	June. 1901	6 82	4 8½	135.591	12,950,269	807.002	35,301	24.262	69	11.039	8 14	5,806	3,285	+1,948	1 356	nil	10 20	7·22	64	Elec. Dpt.	920 696	1·75
Farnworth ...	50,000	Jan., 1902	4·33	4 8½	43.696	1.532,293	242 524	7.486	4 850	65	2,636	6·03	3 241	1.175	—1,780	nil	nil	7 40	4·80	1·17	Elec. Dpt.	317,126	·50
Glasgow	1.000,000	July, 1894	70 34	4 7¾	2,107,880	188.962.610	16,291.082	724,851	356,820	49	368.031	17·46	64,376	45.553	+258.102	233,102	25 000	10·58	5·26	·91	Own wks.	15,372 609	·42
Halifax	168,000	June. 1898	33 41	3 6	342.460	16 322 059	1.387 885	68.289	50,758	74	17,531	5·12	9.957	7.081	+493	493	nil	11 76	8 78	1·00	Elec. Dpt.	2 659 920	1·62
Huddersfield ...	100.000	Feb.. 1901	28	4 7¾	411.722	11 899.287	1.632.000	65.883	34 665	53	31 218	7·58	13 632	10.638	+6.948	11,687	nil	9 37	5·10	1·28	Own wks.	2.565.643	·34
Hull	248.000	July. 1899	13 60	4 8½	383.977	24 220 718	2 512.821	101.259	63 194	62	38.065	9·91	9 932	9.148	+18.985	7.485	11.500	9 61	6 04	1·00	Own wks	3 285.621	63
Ilford	52,000	Mar.. 1903	6·50	4 8½	132,874	5,274.025	577.034	23.218	13.568	58	9.650	7·26	3.046	2,033	+4.571	4.571	nil	9 39	5 64	1 03	Elec. Dpt.	563.464	1·50
Kirkcaldy ...	34,100	Feb., 1903	5·25	3 6	78,731	2.770,936	301,779	10.189	7.623	75	2.566	3 26	2.012	471	+83	40	nil	7 90	6·06	·86	Elec. Dpt	395.071	1·75
Lancaster ...	40.300	Jan.. 1903	3·41	4 8½	27.207	1.079,772	153.692	4,191	4.654	111	*loss* 463	—	1.245	1.125	—2.833	nil	nil	6·54	7·27	·93	Elec. Dpt.	199.600	2·00
Leeds	446 400	Feb , 1894	42·51	4 8½	1,107.977	60,739.234	6.091.437	281,418	155,598	55	125.820	11 36	27.639	27 094	+71,087	19.087	52,000	10·94	6 13	1·10	Own wks.	9.518,680	·34
Liverpool... ...	760,000	1868	57	4 8½	1,863,485	113,057,234	11,734,838	533,394	335,621	63	200,773	10·77	52,932	51,598	+96,243	64,162	32,081	10·73	6 86	1·11	Elec. Dpt. & Bootle Crp.	17,978,718	1 08
Manchester ...	750.000	June, 1901	79·49	4 8½	1,485.612	120,772.368	13.759.071	611,881	392.504	64	219,377	14·77	72,781	26.903	+119	69.693	50,000	10 52	6·85	1·20	Elec. Dpt.	16,815.764	1·49
Nelson	36,000	Feb.. 1903	2·74	4 0	30.493	1.420.759	171,132	4,655	3,563	77	1,092	3 58	781	232	+79	nil	nil	6 47	5 00	·78	Elec. Dpt.	170.611	2·00
Newc'stle-on-Tyne	257.000	Dec., 1901	23·36	4 8½	1,054.493	39.715.120	4.059.907	184.170	120,700	66	63,470	6 02	28 896	22 638	+11,936	nil	nil	10 68	7·14	1·09	Own wks.	7.757.885	·36
Newport	76.000	April. 1903	8·50	4 8½	164 219	4,473.411	635,000	23.653	15.533	66	8 120	4 95	4,360	3.360	+400	nil	nil	8·63	5 87	1·22	Elec. Dpt.	641.860	1·50
Nottingham ...	240,000	Jan., 1901	16·25	4 8½	559,838	27.876.889	2.512.000	128.202	71.259	56	56,943	10·17	15,333	15,128	+26.482	13,482	13,000	12·07	6 81	1·09	Elec. Dpt.	3.768 601	1·25
Oldham	100.000	Dec., 1900	17 93	4 8½	432,188	12.968,880	1,420,455	60.413	43.286	72	17.127	3 96	15,324	9,629	—7.826	nil	nil	10·01	7·31	1·10	Elec. Dpt.	2,177,309	1·50
Portsmouth ...	198.000	Sept.. 1901	14·50	4 7¾	634,406	18.264 426	1.828,193	92.917	43,427	47	49.490	7 80	18.343	15.119	+16.028	16.028	nil	11·46	5·70	1·15	Own wks.	2,695.605	·55
Rochdale	86.000	May. 1902	3·96	4 8½	83.386	1,156.300	194,490	6.981	6.761	97	220	·26	2.851	1.406	—4,037	nil	nil	8·42	8·34	1·42	Elec. Dpt	393.180	1·47
Rotherham ...	58,000	Jan., 1903	8·33	4 8½	105,762	4,914.479	525 840	21,341	15 602	73	5.739	5 42	2.088	1,261	+2.390	2,407	nil	9 57	7 12	1 02	Elec. Dpt.	806.291	1·50
Salford	300,000	Oct., 1901	32·50	4 8½	511,170	36,956,405	4,726,446	198,648	139,508	70	59,140	11 57	27,529	16,171	+15,440	3,440	12,000	10·08	7 09	1 29	Elec. Dpt. & Man. Cp.	6,102.524	1 89
Sheffield	425.000	1872	32·50	4 8½	988,316	61.450,993	5,768,231	233,829	156,403	67	77.426	7·83	30.722	19.394	+27.310	33.771	8.249	9 67	6 51	·91	Own wks.	9.460.618	48
Southampton ...	107.800	July, 1898	9·72	4 8½	198.621	9,890.952	1,144.350	53,501	36.640	68	16 861	8·49	5 935	4.720	+6.206	1.206	5.000	10 88	7·68	1·26	Elec. Dpt.	1,298.392	2 25
Southport ...	49.000	June. 1900	8·42	4 8½	118.364	3.837.208	431.019	17.646	10.986	62	6 660	5·63	3.803	3.198	—341	nil	nil	9 63	6 12	1·08	Elec. Dpt.	492.261	1·50
Stockport... ...	110,000	Aug., 1901	12·27	4 8½	140.276	3.170.854	606.476	19.074	12 914	68	6 160	4 39	4.196	1.334	+630	nil	nil	7·37	5·11	1·41	Elec. Dpt.	790,892	1 50
Sunderland ..	158.900	June. 1900	10·92	4 8½	277.240	14.848.958	1.433.463	62 669	36,517	58	26.152	9 45	8.241	8,330	+9.581	5 567	4.014	10·46	6·11	1·01	Elec. Dpt.	1 562 748	1·87
Wallasey	56.500	Mar.. 1902	8·48	4 8½	127.949	6.564,493	757.688	35.873	24.980	70	10.893	8·51	4,064	1.618	+5.211	4 500	2.650	11 17	7·91	1·29	Elec. Dpt.	1.243.340	1 63
Warrington ...	80,000	April. 1902	6 42	4 8½	94,563	3,940.305	419.036	16.264	12.012	74	4.252	4 50	3,024	2,011	—783	nil	nil	9·15	6·88	·97	Elec. Dpt.	496,268	1·90
Wolverhampton.	94.200	Mar,. 1902	7·33	3 6	183,840	4 555,435	507,527	23.591	14,911	63	8.680	4 72	5,278	2.293	+1.109	3.475	nil	10·97	7·05	1·22	Elec. Dpt.	773.208	1·66
Yarmouth ...	35.000	June. 1902	3·59	3 6	44,149	1.611.699	222.350	7,876	5.939	75	1.937	4·39	1,570	582	−215	nil	nil	8·33	6·41	1·15	Elec. Dpt.	172.939	2·50

* Includes Repayment Charges.

HOUSING IN GREATER LONDON.

Wanted—Forethought in Planning New Areas in Greater London. Lessons from Germany, as Taught by Mr. T. C. Horsfall. A Metropolitan "Fresh Air Board." Powers to Local Authorities to Acquire Land and to Tax Land Values. The Garden Suburb Trust and its Objective.

A HOUSING Conference was held on Saturday last, March 25, at the Passmore Edwards Settlement, under the auspices of the National Housing Reform Council, to consider the better planning of new housing areas in Greater London.

Alderman Thompson, of Richmond, presided, and, in introducing the principal speaker, Mr. T. C. Horsfall, said that the object of the Conference had in view was a highly important one, from the point of view of the health of the people The question of rural housing and the better planning of new houses in Greater London was one that would be bound to force itself upon the authorities before long. It was no good getting rid of plague spots in London and elsewhere, at the cost of millions of money, and allowing them to be restarted in the suburbs. The urbanisation of the rural districts around London was proceeding rapidly in all directions, and it was to the best interests of the people that they should endeavour to secure healthy and proper suburbs, rather than the dreary deserts which were now growing up. We already had a Water Board, and he advocated a "fresh-air board," to deal with this question, and to buy every available bit of land that had not been built on. The wisdom of that would be seen in the course of a few years' time.

Suggested Reforms.

Mr. T. C. Horsfall (Manchester Citizens' Association) then moved the following resolution:—

"That this Conference desires to draw the attention of the Government, the London County Council, and the local authorities in the suburban area of Greater London, to the grave evils resulting from the lack of proper foresight in the planning of new housing areas, and to the pressing need for the preparation and adoption of new bye-laws, to ensure the ample provision of light and air-space, gardens, &c., for workmen's cottages. Further, this Conference is of opinion that Parliament should confer on local authorities various new municipal powers in regard to the preparation of building plans, the taxation of land values, and the purchase of municipal estates, similar to those powers already possessed by cities in the German Empire."

He pointed out that in Germany the system which was proposed for England was generally adopted, and the result was that people lived happier lives and were better physically, mentally, and morally. He gave details of the great care exercised in Germany with regard to the planning and development of new areas, and pointed out the value which attached to the greater powers possessed by the German authorities in dealing with such matters.

The Secretary to the Conference (Mr. Henry R. Aldridge) seconded the resolution.

Should Smaller Authorities Be Trusted?

The Earl of Crewe, in supporting, gave an outline of the Garden Suburb Trust at Hampstead.

For the sum of £112,000 for the land, he and his friends hoped to create an estate not only for the wealthy, but for the people who could spend £30 or £40 a year, and for others who could spend only six or seven shillings a week. All the houses would have gardens, and not more than ten would be placed on an acre.

In regard to the resolution, Lord Crewe expressed cordial approval of the proposal to give local authorities powers to acquire land and to tax land values. All these schemes, however, required large areas. In his opinion, it would be necessary to divide the local authorities of this country into two classes, namely, the large and the small classes. For the local authorities of the great towns and cities, he had nothing but admiration, and he should not be afraid to entrust them with the fullest power in the matter of dealing with such a question. But when he came to the smaller authorities, he was afraid that he could not speak with the same confidence. So far as they were concerned, if they were to be entrusted with increased power, he should propose the placing of certain restrictions upon them. Anyone in the building trade and any speculator in land should not be eligible for election. It was not that he thought that people were actively corrupt; but there was no doubt a certain desire for A to do a good turn for B, in the hope that B some day might do one for A. It was exceedingly important, to his mind, that such restrictions should be laid down.

Civic Boards of Finance.

The Hon. Claude Hay, M.P., supported the resolution, and drew attention to the need for securing a special housing department at the Local Government Board, to deal with housing matters, and also the vital need for dealing not only with such matters as the feeding of school-children, but the complete betterment of the homes in which they lived.

Professor Patrick Geddes pointed out the need for civic boards of finance to deal with the financial side of schemes like that of the Garden Suburb Trust. The matter should not be left to the public spirit and zeal of social reformers like Mrs. Barnett, but should be taken up by public authorities.

Mrs. Barnett gave a description of the estate plan for the proposed Garden Suburb Trust, and announced that an exhibition would be held on the estate in June.

Mr. W. F. Craies, Secretary of the Mansion House Council, pointed out the importance of proper planning of all new areas, and expressed his pleasure at the prospect of a real awakening of public interest in the subject.

Mr. Fred Knee (Workmen's National Housing Council) cordially supported the resolution, and defended the smaller local authorities, on the ground that the powers granted to them were often so insufficient that they could not be used well. He gave an example on a main road North of London, in which the local authority desired to widen the road, but the owners of the land on each side refused to sell, except at an excessive price.

Miss Sybilla Gurney (Co-partnership Tenants Council) spoke of the value of the work of the Ealing Tenants, Ltd., and Mr. George Haw drew attention to the need for vigilance in regard to the prevention of new slums.

Creating New Local Authorities.

Members of local authorities at Hendon and elsewhere also dealt with some of the difficulties and advantages of the policy.

The replies to the invitation to the Conference included the following, from Mr. H. S. Wells:—

"I regret that I shall be unable to attend the Conference upon housing areas on Saturday; but I may perhaps express a hope that the importance of creating new local authorities, ruling larger areas than those at present in existence before the new extensive municipal powers are conferred, will be considered.

I have been calling attention for some years to the total inadequacy of existing local government authorities for the purposes of new schemes such as yours.

Your Housing Reform Council will, I am sure, do a most useful work in calling attention to the need for more comprehensive plans for new building enterprises than the practical man of to-day thinks necessary."

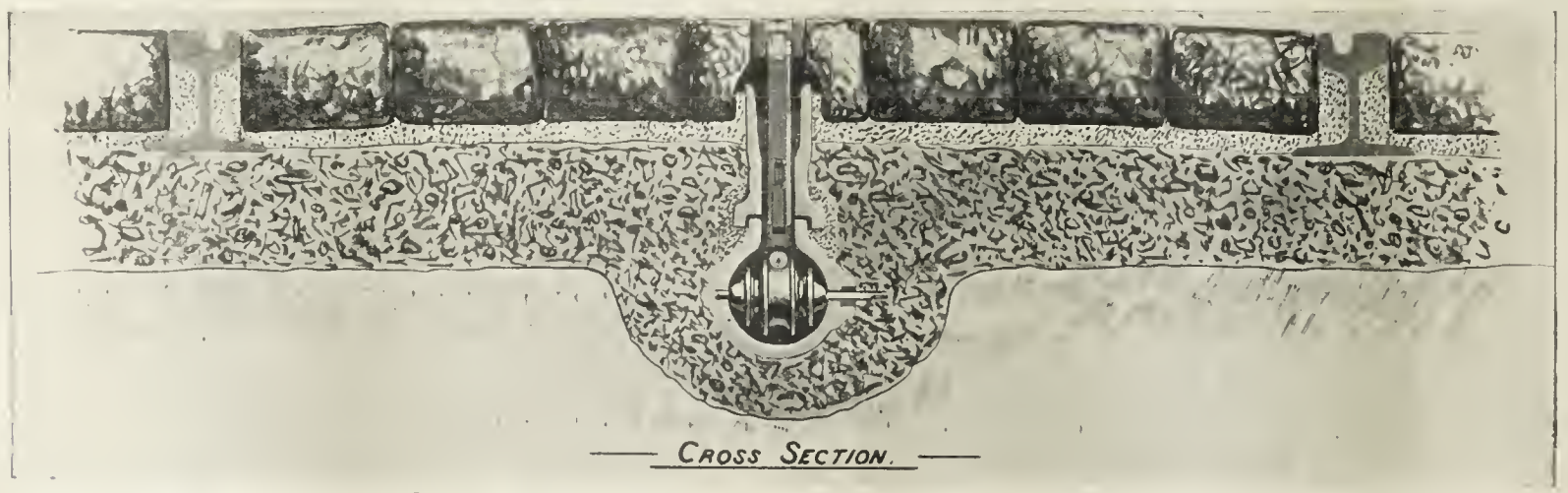
Mr. Frederick Verney, L.C.C., sent a copy of a memorandum prepared by him (and printed by the London County Council), containing some striking figures and valuable suggestions.

Mr. W. C. Johnson (chairman of the Local Government Committee of the London County Council) sent a copy of the statistical return prepared for the L.C.C. by Mr. Harper, containing a record of the bye-laws in operation throughout Greater London.

He also drew attention to the recommendations of his committee on the subject.

Letters from Interested Workers.

Letters expressing regret at absence, and dealing with the subject of the conference, were received from the following members of Parliament:—Messrs. Harry S. Samuel, Edward Moon, Sydney Buxton, Joseph Howard, J. H. Yoxall, Sir John Gorst, Major Evans Gordon, and C. B. Balfour.



The "G.B." SURFACE CONTACT SYSTEM. The Simplest, Best, and Cheapest System.
HAS BEEN ADOPTED BY THE LINCOLN CORPORATION. For Particulars apply to—
The "G.B." SURFACE CONTACT COMPANY, Hamilton House, Bishopsgate St. Without, E.C.
Telegrams: "Opalite, London." Telephone: 2863 London Wall

TRAMWAY TOPICS.

Enterprise in Various Towns. Extensions at Rochdale, Derby, and Chester. Manchester Parcel-Carrying System to be Opened on Monday Next. Dispatching Parcels to Any Part of the Kingdom or Abroad. Motormen and Conductors on Strike at Gateshead. Large Profits on Liverpool System.

THE Chesterfield electric tramways have now been working for a quarter of a year, and the receipts are equal to one year's takings on the old one-horse system at its very best. The total taken on the new system in the three months is £2,200. It has to be borne in mind, in appreciating the returns, that the Whittington portion of the route was not open for the first six weeks of the quarter. As soon as the outlying district was tapped, there was a big jump up in the takings. They rose from an average of about £135 per week to an average of about £195. The total passengers carried comes to 450,000, or 35,000 per week. The town is proud of its trams, and they seem likely to do splendidly.

❦ ❦ ❦

The Rochdale Tramway System.

THE laying of the track for the last section of the Rochdale electric tramways began on Monday afternoon. With the close of this week the section between the centre of Rochdale and the borough boundary of Heywood will be complete. For some time past the cars have been running about a mile and a half along this route. Between Littleborough and Rochdale the old steam trams still run, and this service, with a gradually diminishing length of track, will continue for a time. The work of reconstruction has been started at the Littleborough end. The overhead equipment between Rochdale and Littleborough is virtually complete. The running of electric cars between Rochdale and Littleborough is a matter of some interest to those who visit Hollingworth Lake at holiday times. On the completion of the section between Rochdale and Littleborough the shorter stretch between Littleborough and the village of Summit will be constructed. Summit, which lies on the high road beween Littleborough and Walsden, has never had either tramway or railway station.

❦ ❦ ❦

Liverpool Accounts.

THE annual report for 1904 of the Liverpool tramways general manager (Mr. C. R. Bellamy) has just been issued in handbook form. The revenue account, attested by the Corporation controller and auditor (Mr. Richard Barrow), shows a profit on the tramways system of £179,779 13s. 7d., the year's income having been £547,624 14s. 9d. and the expenditure £367,845 1s. 2d. On the subject of covers for upper decks, it is stated that 317 were so fitted up to date. As showing the effect of the top cover, the report states that the average maximum number of cars in service for last year was 398, as against 407 for 1903, while the passengers carried increased by 3,585,429. The ratio of fatalities was one to 19,440,429, while the ratio of fatalities to passengers carried on the railways was one to 1,030,917. Not the least important feature of the report is a map clearly showing all the tramway routes throughout the city.

❦ ❦ ❦

Chester's Return to Common Sense.

SOME time ago the Chester Corporation decided to extend its electric tramway system at a cost of about £17,000. The matter, however, was deferred in order that the advantages of motor 'buses might be considered. At a meeting on Friday afternoon of the Tramways Committee, reports on the subject were presented, and it was decided to recommend the Corporation to proceed with the scheme for electric cars.

❦ ❦ ❦

Completion of Manchester Parcel-Carrying Scheme.

ON Monday next the Manchester Tramways Committee's scheme for the conveyance of parcels by electric car, already described and illustrated in our columns, will be put into operation. During its preliminary stages the new departure has been under the charge of a special sub-committee, but this week it has been decided to create a permanent sub-committee, consisting of all the members of the committee.

❦ ❦ ❦

A Big Movement.

THIS scheme is for carrying parcels not only within the city and the area of Greater Manchester, but also for dispatching them to any part of the kingdom and abroad. The general manager (Mr. J. M. McElroy) has prepared a useful handbook, "Parcels Express," which shows precisely what the new departure stands for, and gives much information as to the transit of parcels. The chief depot and offices are at 345, Stockport Road, Longsight; the city depot is at 4, Parker Street, Piccadilly, and there are receiving offices in all parts of the city, besides others in the suburban districts. Vans will call at each of the sub-depots and receiving offices frequently during the day, and at warehouses, shops, or other places of business, for the collection of parcels, on application being made to the parcels superintendent at the chief office.

❦ ❦ ❦

Express Messenger Service.

ANOTHER notable feature of the new system is that there will be an express messenger service. Parcels not exceeding 14lb. in weight can be placed immediately in charge of special express messengers at the city depot, who will take them to their destination if it is within half a mile of any of the Manchester tram termini or lines of route. For this service the charges are 6d. within one mile from Piccadilly, and 3d. for every additional mile or part of a mile. The conductors of the Manchester Corporation passenger cars will receive at any appointed stopping-place written applications from the public for a van to call at any address within the prescribed area. The committee has also made arrangements to act as agents for all railway companies. Altogether the parcel-carrying enterprise is a development of municipal activity that is likely to have many followers.

❦ ❦ ❦

Gateshead Men Strike.

A NUMBER of motormen and conductors employed by the Gateshead Tramways Company left work on Saturday as a protest against what they regard as the unjustifiable dismissal of three of their comrades and the reduction of another from the position of motorman to that of conductor. The general manager (Mr. Morrison) and the secretary (Mr. Charlton) state that they were not aware that any of the men were so discontented that they would leave work without the week's notice required under their agreement. No special complaint had been made and no deputation had waited upon the management. If the bulk of the men had expressed dissatisfaction respecting what had been done the company states that it would have received a deputation and discussed the matter. These officials, however, justified the dismissals and the reduction which have been the cause of the trouble. It was officially reported that on Saturday afternoon there were from 20 to 30 men out, but that the ordinary service of cars was being maintained as satisfactorily as could be expected under the circumstances. Between 150 and 200 men are usually employed by the company, and of these 90 belong to the union.

❦ ❦ ❦

Derby Extensions.

THE Tramways Committee of the Derby Corporation has considered tenders for the extensions from the market-place to the borough boundary on Kedleston Road, and from the Dairy House Road terminus to Upper Dale Road terminus, and for the provision of four new cars. It recommends the Council to accept the tender of W. Griffiths and Sons, London, for £18,689 2s. 9d., for the extensions. The borough surveyor's and electrical engineer's estimate was £19,245. The order for the cars is recommended to the Brush Electrical Engineering Company, Limited, Loughborough.

❦ ❦ ❦

Municipal Tramways Amateur Football League.

	Plyd.	Won.	Lost.	Drn.	Goals For.	Agst.	Pts.
Sheffield...	8	6	1	1	18	5	13
Manchester	7	5	2	0	17	8	10
Liverpool..	8	2	4	2	8	16	6
Southport.	7	2	4	1	8	16	5
Wigan ...	8	1	5	2	8	14	2*

* Two points deducted by order of the League Committee, 17th January, 1905.

Result of matches played March 23, 1905:—Manchester 3, Liverpool 0: Sheffield 3, Southport 1.

DICK, KERR & Co., LIMITED.

Manufacturers of all kinds of Electrical Machinery.

Contractors for Municipal Lighting and Tramway Schemes.

HEAD OFFICE: Abchurch Yard, Cannon Street, London, E.C.

WORKS: Preston, Lancs., and Kilmarnock, N.B.

SAFE BIND, SAFE FIND.

The Necessity for Protecting Valuable Property from Fire and from Thieves. So-called Safes that were Tried, and Found Wanting. Introduction of the Ratner Safes. Drill-proof Steel Defies Burglars. Severe Tests Result in Great Triumphs for Ratner Safe Company. Secrets of Success.

THE possession or charge of vast treasure has always been regarded as entailing not only heavy responsibility, but deep and wearing anxiety. "With riches comes care," said a wise man; and perhaps when the treasure to be guarded is the property of others, the responsibility for its safe custody is heavier. There is no watchfulness so acute as the watchfulness of the faithful steward, whose reputation is risked with any risk to which the treasure he has in trust is exposed. There is ever the thought that fire may destroy, or that thieves may break through and steal, and these very real dangers should be guarded against in the best possible way by placing the treasure in the place that will offer a stout and sufficient resistance to invaders of the kind indicated.

1,200,000 Golden Sovereigns.

Bank-managers, diamond merchants, and others who have in their keeping portable property of great value, would be guilty of the most culpable negligence if they failed to make themselves acquainted with the securest means of locking up riches in such a way as to render it a practical impossibility for anything or anybody to injure them. Happily, the articles that are of the greatest pecuniary value are usually not at all bulky. Diamonds and precious stones take up very little cupboard room, and golden sovereigns in great quantity may be stored upon the shelves of a safe. A leading firm of safe-makers recently received a request for a design of a safe which should have in its inmost recesses twelve shelves, each shelf to be capable of holding one hundred thousand sovereigns. This, of course, would mean £1,200,000; and the request is good evidence of the faith the owner or custodian of the money must have in the reliability of the safes of these makers.

Confidence Justified.

Such confidence is perfectly justified, for in recent years the manufacture of fire and thief-resisting safes and strong-rooms has been improved to such a point of perfection that to-day the owner of valuable property need feel very little anxiety concerning the chances of a great conflagration or the depredations of the most expert burglars, providing he has deposited his valuables in a safe of reliable manufacture.

A good deal of thought and considerable ingenuity on the part of the makers and the experts in their employ were necessary before this excellence of workmanship could be attained. The safe of fifty years ago was regarded as an almost impregnable fortress, until it was tried by fire and by the increased skill of thieves, and found wanting. Makers added to the thickness of the armament, but this, though obviously desirable, was not found in practice to render the safe invulnerable either against the fierce onslaught of fire or the cunning and resourcefulness of highly-skilled thieves.

A Clever Device.

It was not, in fact, until the latter half of the Victorian era that the problem could be said to be effectually solved, by the introduction of the twelve-corner-bent method of construction. By this very clever device, for which the public are indebted to the Ratner Safe Company, Ltd., 51, Moorgate Street, E.C., the body, top, bottom, and sides of the safe are formed of one plate of steel, bent at the twelve corners, and the back and front edges are bent, or flanged, inwards, the bolts at front of the door, and the continuous bolt at back of door, shooting behind the solid steel plate which forms the front of the safe. The strength of the bent steel plate thus becomes the strength of the body, which does not depend in any way upon screws and rivets for its integrity. Without bending the flanges back (an obvious impossibility, since it requires a pressure of about 300 tons to bend the flanges of a ½in. body), it is impossible either to take out the back plate of the safe or to open the door without unlocking it.

TRIUMPH OF RATNER SAFES AGAINST GREAT FIRE AT LEEDS.

Burglars Prefer Other "Safes."

As regards thief-resisting qualities, the Ratner safes are so contrived as to checkmate the cleverness of modern safe-breakers. A means of forcing open safes and strong-room doors was discovered some time ago, the apparatus for which can be easily and secretly carried about. It is almost noiseless in operation, and can be manipulated by a man of little mechanical knowledge. The principle is known as the "forcing screw." The only known means of preventing this method of forcing safes and doors is to have the door made of material that cannot be drilled and tapped. The Ratner Safe Company therefore makes the doors of all its thief-resisting safes (and in the better qualities the bodies also) of "Ratner" drill-proof compo safe steel.

Drill-proof Steel.

This material is a compound of hard and soft steels rolled together to form a solid plate. Plates of a large size are manufactured in this way, and are planed, drilled, and otherwise manipulated (while in a soft state) to fit their place in any finished structure, whether it be safe, strong-room, or strong-room door; afterwards by a quenching process they are hardened, so that no tool will cut them. The hard and the soft steel form the solid plate, and no amount of hammering will separate them. They are fused into one metallic mass, and any cutting tool will merely cut away the soft skin or surface, and then meet with extremely hard steel at every point where inserted, so that it becomes an impossibility to get the tool through. The special tough metal in which the hard steel is embedded is in every way adapted to resist blows, and cannot by any means be shattered. This combination of extreme toughness with exceptional hardness makes it an impossibility for a burglar to reach the interior of a safe or strong-room constructed of "Ratner" drill-proof compo.

The above drill-proof metal which the Ratner Safe Company has the exclusive right to use, has been submitted to exhaustive tests by Sir W. G. Armstrong, Mitchell and Co., Ltd., Messrs. Richard Hornsby and Sons, Ltd., Messrs. Tangyes, Ltd., of Birmingham; the City Safe Deposit, London; and a number of other well-known firms, and pronounced by them all to be absolutely undrillable.

A Case in Point.

The Ratner Safe Company, Ltd., also has in its possession numerous testimonials to the impenetrability of their safes from firms in all parts of the world, of which the following, from a city firm, forms a good sample:—

6th April, 1903.

We beg to advise you that burglars entered our premises between Saturday evening and this morning, and made a determined attempt to force open our Ratner safe which we have in use. They had full access to our most extensive stock of high-class engineers' tools, and after making free use of twist drills, stocks, and dies, and steel wedges, being free from interruption, and working under such advantageous conditions, they utterly failed to open it; and we beg you to accept our congratulations.

The Ratner Again Triumphant.

Another, from a Leeds firm, and dated March 7, 1902, says:—

Our premises were entered by burglars last night, and a most determined attempt was made to open one of your safes, which contained cash and securities. Availing themselves of tools which they found ready to hand in our mechanics' shop, they tried in several places to wedge the safe door open by driving cold setts between the door and the frame. Unsuccessful in this, they tried to cut off the cast-steel hinges, and also to "start" the rivets by battering the door with our 14lb. sledge hammer. Thanks to the construction of your safe, their efforts were completely foiled.

This is the more gratifying as another safe on our premises, by a well-known maker, though provided with bands and wedge guards, was forced open, and the contents abstracted, and a safe in an office adjoining ours had the top wedged off by the same gang of burglars.

A Man Who Was Too Sure.

In January, 1899, a highly skilled mechanic and locksmith in Belgrade, Servia, stated in the papers that he could drill and open a Ratner safe. The Ratner Company promptly accepted his challenge, and offered to put 5,000 francs in a safe on condition that he put in 2,000 francs, and if he opened the safe in twenty-four hours, the contents were to become his property: if he were not successful the money became the property of the company. The mechanic had the assistance of two men, of tools, and the selection of any of the Ratner safes. He chose one to operate upon that had been supplied to a merchant in Belgrade some months before. The test came off on February 21, 1899, and after a desperate struggle the three men gave up in despair.

A Wonderful Invention.

The company has invented a lock which provides against the catastrophe of losing one's key, or the chance of any person other than the person in charge of the safe possessing a duplicate key. It is called the Ratner interchangeable key lock. This is a lock to which thousands of keys can be made, every one of which differs; and while any one of these keys will lock the lock, only the key which locked it will unlock it. The advantages are that at any moment a safe and strong-room can be locked up with a new key, and all other keys, including those that have at any time been used, are rendered valueless. It is like putting a new lock on every safe and strong-room, but a great deal better, as the holder of the keys alone will know what key he has used, so that no one could have made a duplicate of that key. In addition to that, the change can be made in a few seconds at no expense whatever. It would be an excellent rule that new keys should always be used when a new holder of the keys is appointed, so that he may feel that the entire responsibility rests upon himself, and that no duplicate keys can be in existence.

Ratner Safes v. Fire.

Where property of great value is concerned, fire is, unquestionably, a more frequent and more dreaded danger than the machinations of the most cunning of burglars. Few destructive forces are so powerful as fire. But here again there is abundant evidence to prove that the Ratner safes are to all intents and purposes invulnerable. The manufacturers have many most gratifying testimonials and letters of thanks to this effect. One of these is from a firm whose premises in Jewin Street were burned down in the great city fire on November 19, 1897, and is as follows:—

> The two Ratner safes that we purchased from you preserved all their valuable contents in a very satisfactory state in the great fire on the 19th inst. This is very gratifying, as the fire is said to be the largest and hottest that has taken place in the United Kingdom since the Great Fire of London in 1666.

An Important Certificate.

The following translation of the certificate in regard to a great fire in Smyrna also bears eloquent testimony to the fire-resisting powers of these safes:—

> Before the Commissioner of Police of this town, Mr. Fassoula Essad Effendi, accompanied by Messrs. André Caraman, M. Pongallos, Paul Manusso, Léon Lurot, Frederic Murat, John Spiegelthal, Henry Denotovich, and Dominique P. Mainetti, the Ratner safe was opened, after same had been taken out from the fire which took place on the premises of Messrs. Paul Nalpas and Company's agency, situate in the Rue Franque, corner of the Rue des Roses. The persons herein above-named certify that the safe, which remained forty-four hours in a fire which was fed by oils, acids, and alcohols, contained the sum of 800 francs in gold and bank notes and various shares belonging to Mr. Ernest Nalpas, and representing the sum of 500 Turkish pounds or thereabouts, which respective amounts were found in a perfect state of preservation.
>
> Dated Smyrna, this 17th September, 1895.

The signatures are then appended, and the following significant observation added:—

> *The other safe in the fire was one made by a celebrated English maker, and the contents thereof were entirely destroyed.*

A Great Victory.

Our illustration is of the immense conflagration in Leeds in 1895, when the clothing factories of Alderman J. Hepworth, Mr. Norris Hepworth, and Messrs. Ansells were burnt to the ground, the total damage amounting to no less than £80,000. In this fire, which is one of the fiercest Leeds has known, the books, etc., of the above firms were all perfectly preserved in five Ratner safes; whereas the contents of nine safes by other makers were destroyed. It is the proud boast of the makers that no Ratner safe has ever been opened by burglars nor had its contents destroyed by fire.

The Strongest Safe Made.

There are various grades of Ratner fire and thief-resisting safes. These are represented in the firm's catalogue by numbered lists, safes being manufactured in various sizes, but according to one model in each list, and while a comparatively low grade safe is guaranteed to possess the fire and thief-resisting properties to which reference has been made in this notice, a higher grade safe necessarily possesses these qualities in enhanced degree. For instance, the List 6—the highest class manufactured—is claimed to be far in advance of everything that has ever been made before, and will resist any known method of attack. It is constructed for extreme risks for bankers, diamonds merchants, and others who have the custody of property of exceptional value. The whole outer surface of this class of safe is made of "Ratner" drill-proof compo safe steel. The drill-proof body is of the minimum thickness of 1¼in., the outer plate being the firm's drill-proof compo safe steel, ½in. in thickness, bent at all twelve corners, and the inner plate ¾in. tough steel, the drill-proof back, 1¼in. thick, being strongly riveted on the inner face of the back flange. The front of the safe body is strengthened by a solid jointless steel bar frame 3in. by ¾in. (giving, with the front flange, a thickness of 3¼in.), against which the door closes, and behind which the massive bolts shoot. The safe is also lined throughout with wrought-steel fire-resisting chambers, 4in. in thickness, filled with the best non-conducting composition, in which is mixed chemical material, evolving moisture on the application of heat.

List 5 safe is exceedingly powerful and well protected, and very similar in construction to the List 6 safe. It is, however, some 20 per cent. cheaper than the last named, and, having been proved to be capable of answering for all ordinary purposes, is the most popular and most in demand of the safes sold by the Ratner firm.

One of the greatest protections against a safe being opened is to have the lock as far as possible away from the front of the door. This feature is most noticeable in the List 6 safe, where the lock is protected by 3⅛in. of solid steel, 2⅜in. of which is drill-proof. In the List 5 the same feature is noticeable, although not to quite the same extent. The lock here is protected by 2⅜in. of solid steel, 1⅜in. of which is drill-proof. The drill-proof rivets which are used in attaching the steel lock case to the door of these safes are closed by hydraulic machinery with a minimum pressure of twenty-five tons.

Largest Contract Ever Undertaken.

The Ratner Safe Company, Ltd., is, without doubt, one of the largest and most successful firms of safe-makers in the world. Its prosperity began at an early date in its career, the first large contract secured being the manufacture and erection of the City Safe Deposit and Agency Co., Ltd., of Throgmorton Street, E.C. This was the largest contract of the kind ever undertaken by any firm of safe-makers. As many as 3,760 safes were built to this order, and 175 steel strong-rooms, the cost amounting to £15,990. The satisfactory manner in which this big order was carried out permanently established the reputation of the Ratner Company, which has never looked back, but has continued from success to success, having, in fact, been entrusted with the building of nearly all the safe deposits in the British Isles, and with many in the Colonies and abroad.

British and Colonial Prosperity.

So great has been the Colonial prosperity of the firm, that it has established a subsidiary company bearing its name, having its headquarters at Johannesburg, and this branch has come to the front with a rapidity as astonishing as that of the original British branch. At the present time the firm is executing a very large contract for the United Safe Deposit, Ltd., of that town. This, when completed, will be far and away the strongest safe deposit in Africa, and one of the strongest in the world. When fully fitted, it will hold about 3,000 safes. The firm has also recently secured an order for a drill-proof strong-room for the premier diamond mines of Johannesburg. This will be the strongest room ever constructed, and the order was secured after severe competition with all the leading makers. Among other safe deposit works carried out by the Ratner Company may be mentioned extensive additions to the great Chancery Lane Safe Deposit; the safe deposit and strong-rooms of Messrs. Harrod's Stores, Ltd.; the Hull Safe Deposit, and the Belfast Safe Deposit, both built for the Ocean Accident and Guarantee Corporation, Ltd., of London, etc.

The following important work has also been entrusted to the makers of Ratner safes:—Safe for his Majesty King Edward at Balmoral; safe used by Her Majesty Queen Alexandra at the Coronation Bazaar, when upwards of £20,000 was at one time deposited in it for safe custody; safe for the Jubilee solid gold plate at St. Paul's Cathedral; Government departments; safes for many of the leading banking companies and railway companies; for the London County Council, and the principal Metropolitan and provincial municipalities.

Thoroughness the Secret of Success.

The manufacturing works of the Ratner Safe Company are situated in the Hancock Road, Bow, E., and in addition to the City Depot already mentioned and the Colonial branches, there is a branch in Leeds, and a foreign branch at Bucharest. The rapid rise of the firm to its present foremost position is probably in great measure due to the fact that its directors, officers, and experts are men of considerable experience. The directors are Mr. Daniel R. Ratcliff, J.P., who was for many years managing partner in the firm of Thomas Milner and Son, safe manufacturers, of London and Liverpool; Mr. Perry F. Nursey, C.E., a past-president of the Society of Engineers; Mr. W. Milner Ratcliff, whose thoroughness in all the details of the business, and whose insight into the requirements of customers cannot fail to be powerful contributing factors to the position the Ratner Safe Company has attained.

Straightforward Trading.

Two things particularly strike us in turning over the pages of the firm's voluminous illustrated catalogue. The first is the admirable explicitness and attention to detail throughout, and the second the frankness and fairness with which everything is stated. There is no ambiguity, no attempt to evade explanation of such important matters as the thickness of the plating, etc., in any part of the safes. This is the more noticeable on account of the extreme reticence which certain other safe-makers exhibit in regard to these important details. They will, apparently, explain everything but what the prospective purchaser would most like to know. For example, in one of these catalogues, taken up at random, we find no mention whatever of the thickness of the plating of the safes illustrated, although the letterpress draws our attention to the very obvious fact that the doors of the safes "are upon hinges." A like reticence is sometimes even observed when inquiry is made at the business depots of these safe-makers. Not long ago an inquiry of this description was met by the lame answer, "We do not know the thickness of the plating of our safes." "Can you not telephone to your works to ascertain?" asked the inquirer. This was done, and the reply received from the works was that the authorities there were "unable to give the required information." The natural inference is that firms who are obliged to be secretive fear comparison of their safes with those of a more straightforward firm. The catalogue of the Ratner Company is intended to be as lucid as possible, and should any one who is contemplating the purchase of safes or strong-rooms wish for still fuller and more detailed particulars than are to be found in the catalogue, a representative of the firm is, upon application, deputed to conduct him round the depot, answer questions, and explain everything in the fullest possible manner.

"SANALENE"

One Gallon covers from 60 to 70 sq. yds. on a prepared surface.

The Latest Production.

A PERFECT ENAMEL PAINT.

Flows Freely, Hard Wearing, Easily Washed and Polished.

"SANALENE"

FOR PRACTICAL WORK BY PRACTICAL USERS.

Supplied in White or Colours, as desired.

BLUE LABEL

For Inside Use.

RED LABEL

For Outside Use.

For Colour List and Full Particulars, apply to—

ASPINALL'S ENAMEL, Ltd.,
NEW CROSS, LONDON, S.E.

GREAT **ECONOMY** WITH

GALLOWAY BOILERS AND ENGINES

STEEL BOILERS. ALL SIZES AND PRESSURES. **READY DELIVERY.**

STEAM ENGINES. HIGH-SPEED AND OTHER TYPES **QUICK DELIVERY.**

ENGINE AND BOILER REPAIRS PROMPTLY EXECUTED.

BRANCH OFFICES:

LONDON:	GLASGOW:	BIRMINGHAM:	NEWCASTLE-ON-TYNE:
17, Philpot Lane.	128, Hope Street.	Iron Exchange.	13, Mosley Street.

GALLOWAYS LIMITED
MANCHESTER.

THE SURVEYOR AND CONTRACTOR.

Schemes in Progress and Suggested. Tenders Open. New Inventions for Local Government Enterprises.

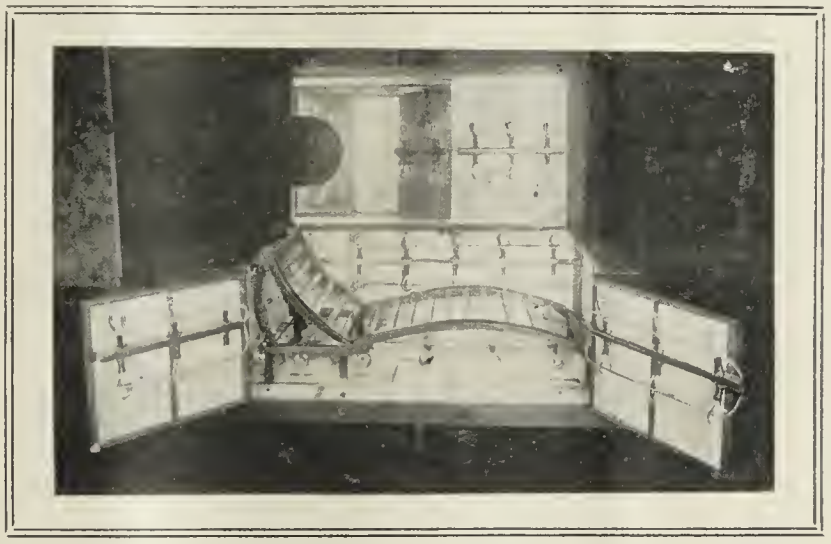
PADDINGTON ELECTRICITY EXHIBITION.

THE above exhibition, which has been organised by the Metropolitan Electric Supply Company, Limited—the statutory suppliers of electricity in the borough—is being held at the Queen's Road Baths, Bayswater, W. It opened on Saturday last, and will close on Saturday, April 8. Various examples illustrating the modern development of electricity for lighting, heating, power, and other purposes are on view, and serve admirably to attain the object of the exhibition by drawing public attention to the recent rapid growth of electric lighting in Great Britain. The following table demonstrates this growth during the past 14 years:

	1891.	1904.
Capital invested..	£4,619,595	£41,890,202
Gross revenue ..	172,911	5,030,304
Units sold	6,056,097	414,416,018
Lamps connected	385,316	17,959,143

The results achieved in America are much more considerable.

Among the exhibits are luminous electric radiators, which consume no air and produce no fumes, but radiate pure heat in all directions; electric light fittings; model of electric passenger lift; dynamos; motors, motor generator set to transform alternating into continuous current; various arc lamps; specialities in table and decorative lighting; electric cooking and heating apparatus; examples of embroidering and engraving by electricity; hospital medical tent, fitted for the treatment of the diseases which are known to be amenable to the application of electricity; radium exhibits, and other features of interest.



SEMI-RECLINING "SUNBEAM" BATH.

Perhaps the most remarkable of these is the "Sunbeam" Electric Light Bath, which, with the appliances connected with it, is on view at the stand of Mr. C. M. Holmquist, of 57, Edgware Road, W. The curative powers of electricity in cases of gout, rheumatism, sciatica, lumbago, and numerous nervous diseases, are admitted by the highest medical authorities.

The "Sunbeam" electric light baths have been found to possess really remarkable powers of affording relief to sufferers from these and similar ailments in which the warm rays of the sun are beneficial, while their use after fatigue or exertion produces both restful and exhilarating tonic effects. In fact, the sudorific and invigorating properties of the baths are probably unequalled. They induce perspiration more quickly than any other agent, and without any inconvenience or discomfort to the patient, the perspiration being due to the light, and not to the hot air, as in other types of baths.

The "Sunbeam" semi-reclining bath consists of a highly polished wood cabinet, about 6ft. long by 3ft. wide, the whole of the interior of which is lined with opal glass and aluminium. The couch consists of glass bars fitted into two curved frames of hard wood, one of which is adjustable to make the couch more or less reclining, and is not fixed to the cabinet, but can easily be taken out. Incandescent lamps are arranged in rows on detachable fittings and placed in such positions as to throw direct rays all over the patient. The temperature is regulated by nine switches which turn on alternate lamps, whereby the light and heat are kept uniform. Municipal medical authorities specially recommend this semi-reclining bath, as it affords the best position for weak persons.

The "Sunbeam" cabinet bath has been specially designed for home use, and its construction is so simple that no attendant is needed, wherefore it can be recommended as the healthiest and simplest form of domestic Turkish bath. It consists of a highly-polished cabinet, about 4ft. high by 2ft. 10in. wide, and 3ft. 9in. deep; opal reflectors and fittings as in the semi-reclining bath; a chair, with complete rest for the back, of glass, which is adjustable to suit persons of any height. There are also baths for local treatment of limb or shoulder, &c.

The Sunbeam electric light baths are very economical in use, owing to their low consumption of current. Taking fifteen minutes as the average duration of a bath, the cost at 3d. per unit amounts to 1¼d. These baths are now in use at several London hospitals, electro-therapeutic institutes, and nursing homes, as well as in many private houses; and the Paddington Exhibition will doubtless help to bring their merits still more prominently before the public. We understand also that the manufacturer is prepared to offer them on hire, at special terms.

Tenders Wanted.

Advertising, Southampton Corporation.
April 3.—For the sole right of advertising on their tramcars for a period of 5 years. See advt. in last issue. Mr. R. R. Linthorne, Town Clerk.

Ambulance, Leeds Guardians.
April 4.—For the supply of a four-wheeled ambulance, for use at their workhouse and infirmary, Beckett Street. Mr. James H. Ford, Poor Law Offices, South Parade.

Architectural Competition, Rochester Corporation.
May 15.—Designs for the erection of a technical institute; three premiums of 50, 20, and 10 guineas. Mr. Apsley Kennette, Town Clerk.

Artisans' Dwellings, Cardiff Corporation.
April 12.—For the erection of above at Wellington Street, Canton. Mr. J. L. Wheatley, Town Clerk, Cardiff.

Asphalte, &c., Felixstowe U.D.C.
April 3. For the supply and delivery of the above and various materials for one year, and also for team labour. Mr. F. B. Jennings, Clerk to the Council.

Asphalting, Melton Mowbray R.D.C.
April 3.—For asphalting and repairing the footpaths in the district. Mr. Arthur H. Marsh, Clerk to the Council.

Barn, Boston Corporation.
April 3.—For erection of above on their farm in the East Fen. Mr. M. Staniland, Town Clerk, Municipal Buildings.

Baths Flooring, Paddington Borough Council.
April 3.—For making-up, storing, and relaying the floor at the Queen's Road Baths. Mr. A. W. J. Russell, Town Clerk.

Boiler Flues, Hammersmith Borough Council.
April 5.—Mr. H. Thompson, Town Clerk.

Brick Sewer, Keighley Borough Council.
April 4. For the reconstruction of about 575 yards of egg-shaped and circular brick sewer. Mr. W. H. Hopkinson, Borough Engineer.

Bridge, Berks County Council.
April 7.—For re-building York Poole Bridge, at Shinfield, near Reading. Mr. Joseph Morris, County Surveyor.

Building, Bridlington Town Council.
April 5.—For the construction of a dwarf wall, steps, &c., at the proposed Beaconsfield Gardens. Mr. A. E. Matthewman, Town Clerk.

Building, East Sussex County Council.
April 17.—For the erection of the proposed new offices in Fisher Street, Lewes. Mr. Fred. J. Wood, County Surveyor.

Building, Aston-in-Makerfield U.D.C.
April 10.—For the erection of new administrative building, scarlet fever and diphtheria pavilions, laundry, disinfector, stables, and mortuary buildings, &c. The Clerk to the Council.

Building Sites, Stepney Borough Council.
May 1. Building sites of not less than 16,500ft. super within the borough of Stepney, suitable for the erection of a council chamber and municipal offices. Mr. George W. Clarke, Town Clerk, Municipal Offices, 15, Great Alie Street, Whitechapel, E.

Building, Ebbw Vale U.D.C.
April 4.—For the work of erecting a caretaker's house, with boundary wall and outbuildings. Mr. Tho. Hughes, Clerk to the Council.

Butter, Pontefract Guardians.
April 7.—For the supply of the best Danish and English fresh butter for six months. Mr. T. J. Amies, Clerk to the Guardians.

Butter, Towcester Guardians.
April 3.—For the supply of fresh butter for the quarter ending Midsummer next. Quantity about 24lbs. weekly. Mr. William K. Higham, Clerk to the Guardians.

Carnegie Free Library, Batley Borough Council.
April 5.—For the masons', joiners' plumbers', plasterers', slaters', painters', heating engineers', and electrical engineers' work respectively in the erection and completion of these buildings. Mr. Jos. Hanson Craik, Town Clerk.

Cartage, Hartismere R.D.C.
April 4.—For cartage of materials at per ton from various railway stations. Mr. Harold Warnes, Clerk to the Council, Eye.

Cartage, &c., Leighton Buzzard U.D.C.
April 12.—For street watering, flushing sewers, and other cartage work, covering a period of 11 months from the 1st May, 1905, to 31st March, 1906. Mr. G. L. B. Calcott, 31, High Street.

Cast-Iron Water Mains, Llantrisant R.D.C.
April 18.—For providing and laying about 2,300 lineal yards of 3-inch diameter cast-iron water mains between Llantrisant and Beddau, together with all necessary sluice, fire, and air valves, &c. Mr. Gomer S. Morgan, Engineer's Office, School Street, Pontychun.

Cemetery Works, Radcliffe U.D.C.
April 5. For the erection and completion of registrar's house and mortuary chapel, &c. Mr. S. Mills, Clerk to the Council.

Chairs, Bradford Education Committee.
April 3.—For 576 chairs for Grange Road Higher-grade School. Mr. T. Garbutt, Education Office, Manor Row.

Clothing, Drapery, &c., Bromley (Kent) Guardians.
April 3.—The above for the ensuing year. Mr. Edward Haslehurst, Clerk to the Guardians.

Coal, Dundee Corporation.
April 8.—For the supply of gas coal, splint, and coking coal and nuts, for delivery over a period, at the option of the commissioners, of six, nine, or twelve months. Mr. Alex. Ynill, Engineer and Manager.

Coal, Kent County Asylums Committee.
April 20.—For the supply of 3,400 tons of steam coal, 1,200 tons of household coal, 1,025 tons of gas coal, and 85 tons of baker's coal, for the Asylums at Barming Heath and Chartham. Mr. Francis R. Howlett, Clerk to the Committee, 9, King Street, Maidstone.

Coal, Newport (Fife) Town Council.
April 3.—For the supply of the above for 12 months. Mr. John Scrimgeour, Town Clerk.

Coal, Carnarvon Corporation.
April 8.—For the supply of good household coal for one year, from May 1, 1905, for various police stations. The Chief Constable.

Coffins, Sheffield Guardians.
April 3.—For the supply of above for the in and out-door poor, from 1st April, 1905, to 31st March, 1906. Mr. Albert E. Booker, Clerk to the Guardians.

Coke, Metropolitan Asylums Board.
April 3.—For the supply of above to their several institutions. Mr. T. Duncombe Mann, Clerk to the Board, London, S.W.

Concession for Sale of Salis Water, Bath Corporation.
April 8.—For the concession (which will extend over a long period of years) of above, and exclusive rights connected with the aeration and sale, in aerated form, of the mineralwaterissuing from the hot springs of Bath. Mr. Fredk. D. Wardle, Town Clerk.

Designs for Libraries, Cardiff Corporation.
June 17.—From architects who have been in practice not less than six months as principals in Cardiff, for branch libraries to be erected at Canton and Cathays.

Designs for Libraries, King's Norton U.D.C.
April 26. Architects resident in or practising within the city of Birmingham may on certain conditions enter into above architectural competition for a library to be erected on the site in Church Hill, King's Norton. Mr. Edwin Docker, Clerk to the Council, 10, Newhall Street, Birmingham.

Drapery and Haberdashery, Bristol Guardians.
April 7. For the immediate supply of a quantity of above. Mr. J. J. Simpson, Clerk to the Guardians.

Electric Tramcars, Birmingham City Council.
April 4.—For the supply, delivery, and erection of 200 electric tramway cars. See advt. in last issue. Mr. Alfred Baker, General Manager, Tramways Department, 254a, Corporation Street.

Electrical, &c., Apparatus, Plymouth Education Authority.
April 26.—For the supply of apparatus for teaching purposes for the new mechanical and electrical engineering laboratories. Mr. E. Chandler Cook, 18, Princess Square.

Extension of Sewer, &c., Gelligaer R.D.C.
April 10.—For work required to be done in the laying of 6in. stoneware pipes, &c., for the extension of a sewer at the village of Troedrhiwfuwch. Mr. Frank F. James, Clerk to the Council, 134, High Street, Merthyr Tydfil.

Extension of School, Aberdare U.D.C.
April 12.—For the erection of three additional class-rooms, &c., and carrying out alterations to Aman Infants' School, Aberaman. Mr. John Morris, Clerk to the Council.

Fire Brigade Horses, &c., Kingston-upon-Thames U.D.C.
April 4.—For the supply of horses and drivers for the fire engine and escape at No. 1 station. Mr. Harold A. Winser, Town Clerk.

Filtering Material, Harrogate Corporation.
April 8.—For the supply and delivery of about 6,500 tons of honeycombed slag and about 6,000 tons of clinkers. Mr. E. Wilson Dixon, Engineer, 1A, Cambridge Crescent.

Furniture, Devonport Guardians.
April 5.—For the supply of above to the infirmary. Mr. Albert Gard, 19, St. Aubyn Street.

Garden Fencing, London County Council.
April 7.—For the supply and erection of wrought iron boundary and internal fencing for the new garden in Portland Street, Walworth. Mr. G. L. Gomme, Clerk to the Council, Spring Gardens, S.W.

Gas Coal and Cannel, Edinburgh and Leith Corporations' Gas Commissioners.
April 10.—For the supply of above for delivery at their Granton Works over a period of 12 months or more. Mr. James M'G. Jack, 25, Waterloo Place, Edinburgh.

Granite, Chelmsford Guardians.
April 10.—For 100 tons of rough granite for breaking by casual paupers. Mr. W. W. Duffield, Clerk to the Guardians.

Granite Setts, Liversedge U.D.C.
April 7.—For the supply of about 1,200 tons of 4in. by 5in. Norwegian granite setts. Mr. Frank Langley, Engineer and Surveyor, Council Offices.

Heating Apparatus, Metropolitan Asylums Board.
April 4.—For hot-water heating apparatus at Gore Farm Upper Hospital, near Dartford, Kent. Mr. T. Duncombe Mann, Clerk to the Board, S.W.

Heating, Boston Guardians.
April 15.—For heating by low pressure hot-water the infirmary buildings, part existing and part proposed to be erected. Mr. John M. Simpson, Clerk to the Guardians.

Horse Hire and Materials, Truro City Council.
April 3.—For the supply of above for 12 months ending March, 1906. Mr. Measham Lea, City Surveyor.

Hose for Fire Brigade, London County Council.
April 11.—For the supply and delivery of rubber-lined flax hose for the fire brigade, and for the supply of unlined flax hose for the brigade. Mr. G. L. Gomme, Clerk to the Council.

Iron Pipe Sewer, Middleton Corporation.
April 5.—For the construction of above. Mr. Frederick Entwhistle, Town Clerk.

Labour and Various Stores, Teddington U.D.C.
April 3.—For smith's works, team labour, granite, forage, implements, &c. Mr. G. H. Salmons, Clerk to the Council.

Laundry Machinery, Boston Guardians.
April 15.—For laundry fittings, machinery, engine and boiler for the new workhouse laundry. Mr. John M. Simpson, Clerk to the Guardians.

Library, Southend-on-Sea Corporation.
April 27.—For the erection of a public library in Victoria Avenue. See advt. in this issue. Mr. William H. Snow, Town Clerk.

Library, Whitehaven Town Council.
April 3.—For the various works in connection with the erection of the Carnegie Public Library. The Town Clerk.

Loan of £33,803, Stourbridge Guardians.
April 5.—For the erection of a new workhouse; loan repayable in 30 years by equal half-yearly (or yearly) payments of principal and interest combined. Mr. G. F. James, Clerk to the Guardians.

Materials and Labour, Chelmsford R.DC..
April 3.—For the supply of materials, team labour, and manual labour, for the whole of the parishes in their district, for the year ending 31st March, 1906. Mr. H. Glynn Warne, Surveyor of Highways, Avenue Chambers, Market Road.

Materials and Labour, Rochford R.D.C.
April 5.—For the supply of granite and flints for the highways within their district, and for unloading and carting the above materials as and when requested by the surveyor. Mr. Frederic Gregson, Clerk to the Council, Southend-on-Sea.

New Bridge, Aberdeen County Council.
April 3.—For the erection of a new bridge, constructed of steel girders and masonry, over the River Bogie, at Smithston, near Gartly. Mr. James Barron, Engineer to the Council.

Noran Water Scheme, Arbroath Corporation.
April 6. For various works in connection with the above. Mr. W. K. Macdonald, Town Clerk.

Painting, &c., Halifax Corporation.
April 13.—For decorating and painting certain portions of the interior of the Town Hall. Mr. Keighley Walton, Town Clerk.

Painting, Bermondsey Guardians.
April 13.—For painting and other works to certain parts of the interior and the whole of the exterior of the buildings, including outbuildings, at their workhouse, Ladywell, S.E. Mr. E. Pitts Fenton, Guardians' Offices, 283, Tooley Street, S.E.

Painting, Metropolitan Asylums Board.
April 5.—For external and internal painting work at Park Fever Hospital, Hither Green, S.E.; and internal painting work at the Brook Fever Hospital, Shooter's Hill, Woolwich. Mr. T. Duncombe Mann, Clerk to the Board.

Painting, &c., Leeds Corporation.
April 14.—For painting and decorating at the following recreation grounds:—Armley and Oak Road; Hunslet Lake, Holbeck Moor, and Farnley; Bramley and Stanningley; Roundhay. The Town Clerk.

Painting, Stafford Corporation.
April 17.—For above at the Municipal Cottages, in Broad Eye, and Crooked Bridge Road. Mr. M. F. Blakiston, Town Clerk.

Pavements, &c., Swansea R.D.C.
April 5.—For renewing and relaying the pavements, kerbing, and channelling in Upper and Lower Lime Streets and Trinity Street, Gorseinon.

Paving and Fencing, Hove Corporation.
April 5.—For providing and laying tar paving on King's Gardens Esplanade, and providing and erecting iron fencing and piers by side of path adjoining. See advt. in last issue. Mr. H. Endacott, Town Clerk.

Paving, &c., Herne Bay U.D.C.
April 5.—For the levelling, paving, &c., of four roads within the district. Mr. Joseph Jubb, Clerk to the Council.

Paving, &c., Eastleigh U.D.C.
April 4.—For the sewering, making-up, and lighting, and for tar paving the footways of three roads. Mr. Henry White, Clerk to the Council.

Plans for Dwellings, Norwich Corporation.
May 8.—The Housing Committee offer a premium of 20 guineas for the best set of above. Mr. Arthur E. Collins, City Engineer.

Provisions and Stores, Tewkesbury Guardians.
April 3.—The above for the use of the workhouse for periods of three and six months respectively. Mr. H. A. Badham, Clerk to the Guardians.

Pumping Works, &c., Bishops Stortford U.D.C.
May 8.—For supplying and fixing two Lancashire boilers, for supplying and fixing steam pumping engine and pumps, for supplying and fixing gas pumping engine and pumps, together with suction gas plant, complete. Mr. Thos. Swatheridge, Clerk of the Council.

Purchase of Stable Manure, Hastings Corporation.
April 3.—From their stables at Rock-a-Nore, Silverhill, and Bopeep, for a period of either six or twelve months from April 10th next. Mr. Ben F. Meadows, Town Clerk.

Renting Gardens, Bristol Corporation.
April 3.—From persons desirous of renting for three years the productive fruit, flower, and vegetable gardens attached to Ham Green House, on the south side of the River Avon. Mr. T. H. Yabbicom, City Engineer, 63, Queen Square.

Road Materials, &c., Blackrock Guardians.
April 4.—For numerous supplies as above, and for Indian corn, timber, and blacksmith's work. Mr. R. Finlay Heron, Town Clerk.

Road Materials, Brighton Corporation.
April 3. For the supply of the necessary materials and laying of tar macadam on a portion of the Madeira Road, comprising about 21,000 superficial yards. See advt. in last issue. Mr. Hugo Talbot, Town Clerk.

Roads, Staffordshire County Council.
April 1.—For the supply and cartage of road materials, tools, and road implements for six districts in the county. Mr. James Moncur, County Buildings, Stafford.

Road Metalling, Truro City Council.
April 3.—For the supply and delivery of 1,100 tons of 2½in. of above. Mr. Measham Lee, City Surveyor.

Roads, &c., Southend-on-Sea Corporation.
April 6.—For the making up of Canewdon Road (West), Chase Road (part of), Glenmore Street, and Ronald Park Avenue (part of). Mr. William H. Snow, Town Clerk.

Road Materials, Uckfield R.D.C.
April 12.—For the supply of unbroken hand-picked flints, &c., for the maintenance of the highways within the Council's district. Mr. F. Holman, Clerk to the Council, 86, High Street, Lewes.

Road Materials, Bognor U.D.C.
April 6.—For the supply of granite, flints, gravel, and cement for their district for a period of twelve months. Mr. H. L. Staffurth, Clerk to the Council.

Road Materials, &c., Blackrock Guardians.
April 4.—For numerous supplies as above, and for Indian corn, timber, and blacksmith's work. Mr. R. Finlay Heron, Town Clerk.

Sewer, Frinton-on-Sea U.D.C.
April ?.—For the construction of about 780 lineal yards of 9in. pipe sewer. Mr. P. O. Macdonald, Clerk to the Council.

Sewers, Western Valleys Sewage Board, Newport (Mon.).
April 8.—For the construction of the main outfall sewer, tank sewer, and sea outfall, from Aberbeeg to low-water mark in the Bristol Channel. Mr. T. S. Edwards, Clerk to the Board, 24, Stow Hill.

Sewerage, Sevenoaks R.D.C.
April 4.—For the construction of a nine-inch stoneware pipe sewer, about 930 yards in length, at Dunton Green. Mr. G. F. Carnell, Clerk of the Council.

Scavenging, Norton R.D.C.
April 10.—For the emptying of ashpits, &c., in the parishes of Dore and Totley. Mr. Thomas Smith, Clerk to the Council.

School, &c., Mountain Ash R.D.C.
April 15.—For the erection of a mixed school and the execution of works connected therewith at Abertaf, Abercynon. Mr. A. Morgan, Director of Education.

School Extension, Essex Education Committee.
April 11.—For the extension of the County Secondary School in Melbourne Road, Ilford, by adding six class-rooms, cookery, cloak-room, lavatories, &c. Mr. C. W. Clayson, B.A., Principal and Secretary, Essex County Secondary School, Ilford.

Shelter House, Islington Borough Council.
April 10.—For the construction of above at the disinfecting station, Seven Sisters Road, Holloway, N. Mr. William F. Dewey, Town Clerk.

Steam Rolling, Trowbridge U.D.C.
April 10.—For scarifying and steam rolling for twelve months. The Chairman of the Finance Committee.

Stone, Helmsley R.D.C.
April 13.—For the supply of whinstone and slag for repairing their roads for twelve months. Mr. Robert Pearson, Clerk to the Council.

Swimming Baths, Gcole U.D.C.
April 3.—For the various works required in erection of public swimming-baths. Mr. J. W. Johnson, Clerk to the Council.

Switchboards, Manchester Corporation.
April 4.—For the supply, delivery, and erection at their Dickinson Street Generating Station of high and low tension switchboards. Mr. William Henry Talbot, Town Clerk.

Tanks, &c., Kidwelly Borough Council.
April 3.—For constructing storage tanks and supplying and laying water mains. Mr. D. C. Edwards, Town Clerk, Stepney Street, Llanelly.

Town Hall Restoration, Shoreditch Borough Council.
April 18.—Tenders from responsible building firms for the above works. Mr. H. Mansfield Robinson, Town Clerk.

Turret Clock and Case, Camberwell Borough Council.
April 29.—For an English-made turret time-piece clock, with two 3ft. 6in. dials; for a clock case, to be made of English oak; and for fitting up said clock in case standing out from external wall bracket, at Old Kent Road Baths. Mr. C. William Tagg, Town Clerk.

Uniforms, Woolwich Borough Council.
April 5.—For the supply of above for their officials. Mr. Arthur B. Bryceson, Town Clerk.

Use of Recreation Ground, Ramsgate Corporation.
April 4.—For the use of pitches for cricket, tennis, croquet, bowls, &c., on Warre Recreation Ground, during the ensuing season. Mr. E. C. Byrne, Town Clerk.

Water Main, Huntingdon U.D.C.
April 8.—For the laying of a 4-inch water main from High Street to the barracks, a distance of about 324 yards. Mr. E. Borissow, Borough Surveyor.

Waterworks, Llantrisant R.D.C.
April 18.—For the construction of a reservoir and filter beds, &c. Mr. Gomer S. Morgan, Engineer's Office, School Street, Pontyclun.

Waterworks, Cardiff Corporation.
April 6.—For the erection and building of a filter-house and meter-house at the "Heath" filter beds, near Cardiff. Mr. J. L. Wheatley, Town Clerk.

Waterworks, Bantry R.D.C.
April 11.—For the execution of works for carrying out the scheme for providing an additional supply of water for the town. Mr. Richard Croby, Clerk to the Council.

Works and Materials, Sunderland Corporation.
April 5.—For the supply of materials in various quantities and the execution of certain works. The Town Clerk.

Appointments Vacant.

Art Master, Wolverhampton Corporation.
April 10.—As above and to take the general management of their school of art; salary £300 per annum, rising to £375. See advt. in last issue. Mr. Horatio Brevitt, Clerk to the Education Authority, Town Hall.

Assistant Nurse, Banbury Guardians.
April 3.—At the workhouse infirmary; salary £21 a year, rising to £25. Mr. E. Lamley Fisher, Clerk to the Guardians.

Assistant Nurse, Bromley Guardians.
April 3.—For their workhouse at Farnborough, Kent; salary £23 per annum, rising to £28, with uniform, residence, rations, washing, and an optional allowance of £3 18s. per annum in lieu of beer. Mr. Edward Haslehurst, Clerk to the Guardians.

Assistant Nurse, Huddersfield Guardians.
April 13.—Salary £20 a year, rising to £30. Mr. E. A. Rigby, Clerk to the Guardians.

Assistant Nurse, Nuneaton Guardians.
April 4. Salary £25 a year, with apartments, rations, and washing. Mr. C. Blakeway, Clerk to the Guardians.

Assistant Relieving Officer, Camberwell Guardians.
April 7.—Salary £90 a year, increasing to £100. Mr. Charles S. Stevens, Clerk to the Guardians, 29, Peckham Road, S.E.

Assistant Schoolmistress, Monmouth County Council.
April 3.—For the Pontypool Pupil Teacher Centre; salary £90 per annum. Mr. A. B. Badger, M.A., B.Sc., County Council Offices, Newport.

Assistant Surveyor and Building Inspector, Bexhill Corporation.
April 8.—Commencing salary £80 a year. See advt. in last issue. Mr. T. E. Rodgers, Town Clerk.

Asylum Staff, Middlesex Asylum Committee.
April 8.—For the following posts:—Assistant Clerk, salary £75 per annum, and dinner daily; Assistant Storekeeper, salary £75 per annum, and dinner daily; Dispenser (male), salary £85 per annum, and dinner daily, must be duly qualified by the Royal Pharmaceutical Society; Assistant Head Male Attendant, salary £50 per annum, with board, lodging, and washing; Assistant Head Male Night Attendant, £50 per annum, with board, lodging, and washing; Assistant Head Nurse, salary £50 per annum, with board lodging, and washing; Assistant Head Night Nurse, salary £40 per annum, with board, lodging, and washing; Needlewoman, salary £40 per annum, with board, lodging, and washing; Assistant Needlewoman, salary £35 per annum, with board, lodging, and washing; Head Laundress, salary £40 per annum, with board, lodging, and washing; Female Cook, salary £38 per annum, with board, lodging, and washing; Hall Porter, salary £38 per annum, with board, lodging, and washing; Hall Porter (Night), salary £32 per annum, with board, lodging, and washing; the hall porter's duties include clerical work. The Medical Superintendent, Middlesex County Asylum, Napsbury, St. Albans, Herts.

Established 1871.

Highest Award (Silver Medal) at the Sanitary Congress, Glasgow, 1904.

THE
LIMMER ASPHALTE PAVING CO.,
LIMITED.
Telephone:— No. 2147 LONDON WALL.
Telegrams:— "LIMMER, LONDON."
Sole Proprietors of the
MONTROTIER SEYSSEL ASPHALTE MINES, BASSIN DE SEYSSEL.
FOR CARRIAGE-WAYS, FOOTWAYS, FLOORS, ROOFS, PLAYGROUNDS, &c.
This Company's MINERAL ROCK MASTIC ASPHALTE is specified by H.M. Office of Works, the Admiralty, Home Office, and other Government Departments, in India, South Africa, &c.
LITHOFALT MASTIC PAVING.
CHEAP AND DURABLE.
ARCHITECTS and SURVEYORS will secure the best work by inserting in their specifications: "All work to be done by The Limmer Asphalte Paving Co.'s own workmen."
Head Offices: 2, MOORGATE STREET, LONDON, E.C.

Assistant Inspector of Nuisances, Yarmouth Corporation.
April 6.—Commencing salary £100 a year, rising to £125. See advt. in this issue. Mr. W. Edgar Stephens, Town Clerk.

Cast-iron Pipe Inspector, Fleetwood U.D.C.
April 8.—To test pipes which are to be made in the Staveley district. See advt. in this issue. Mr. Joseph Tildsley, Clerk to the Council.

Cattle Inspector, London County Council.
April 6. As above, in the Public Health Department. Wages £3 10s. Mr. G. L. Gomme, Clerk to the Council, Spring Gardens, S.W.

Charge Nurse, Bermondsey Guardians.
April 18.—At the infirmary, Lower Road, Rotherhithe. Salary £30 a year, rising to £35, with rations, lodging, washing, uniform, and £4 in lieu of beer. Mr. E. Pitts Fenton, Clerk to the Guardians.

Charge Nurse, St. Neot's Guardians.
April 7. Salary £30 a year, uniform to value of £5, and the usual officers' board, lodging, and laundry. Mr. John A. Ennals, Clerk to the Guardians.

Clerk, Portsmouth Corporation.
April 4.—As above in Borough Treasurer's Department. Salary £80, rising to £120. See advt. in this issue. Mr. Arthur E. Bone, Borough Treasurer, Town Hall.

Clerk, Rutland County Council.
April 12.—As responsible Clerk in County Education Office. Salary £52 per annum. See advt. in this issue. Mr. E. W. Axtell Gardener, B.A., Secretary's Office, Oakham.

Foster Parents, Kingston-on-Thames Guardians.
April 3.—For the offices of foster father and mother, at their new Children's Homes, New Malden. Joint salary £60, rising to £70, with apartments, rations, &c. Mr. James Edgell, Clerk to the Guardians.

Hospital Attendant, Acton U.D.C.
April 3. Salary £30 a year, with board, lodging, and washing. Mr. Wm. Hodson, Clerk to the Council.

Inspector and Surveyor, St. Just U.D.C.
April 8.—Salary: Inspector, £30; surveyor, £22. Mr. Peter Olds, Clerk to the Council.

Inspector of Works, Fleetwood U.D.C.
April 8.—To act under the engineer, as resident engineer; must be skilled in the construction of brick and pipe sewers and sea outfalls. See advt. in this issue. Mr. Joseph Tildsley, Clerk to the Council.

Manager of Baths, Harrogate Corporation.
April 10. For the post of superintendent and general manager of their wells and baths. Salary £200. Mr. J. Turner Taylor, Town Clerk.

Master's Clerk, Mansfield Guardians.
April 5.—Salary £30 a year, with rations (no beer), washing, and furnished apartments. Mr. G. H. Hibbert, Clerk to the Guardians.

Master and Matron, Cheadle Guardians.
April 4.—Salary of master £50, and of matron £30, with furnished apartments, rations, and washing. Mr. F. S. Cox, Clerk to the Guardians.

Master and Matron, Hailsham Guardians.
April 5. Applicants must be man and wife. Salaries: Master, £50; matron, £38 a year, with rations (no beer or beer allowance), and furnished apartments. Mr. Edmund Catt, Clerk to the Guardians.

Meter Inspector, Cudworth U.D.C.
April 6.—Competent man as service layer, meter and lamp inspector, and gas fitter. Wage 35s. per week. Mr. W. E. Raley, Clerk to the Council.

Nurse, Thanet Guardians.
April 4.—Salary £30 a year, with uniform, rations, washing, and furnished apartments. Mr. Chas. Taylor, Clerk to the Guardians, Minster.

Nurse, Westbury Guardians.
April 4.—Salary £30 a year, with furnished apartments, washing, rations, and uniform. Mr. John Callaway, Clerk to the Guardians.

Probationer Nurse, Wolverhampton Guardians.
April 3.—Three nurses as above, at their workhouse infirmary; salary £10, rising to £15 a year, together with residence, rations, uniform, &c. Mr. Frank Harrison, Clerk to the Guardians.

Porter, Dartford Guardians.
April 3.—Salary £30 a year, with rations, uniform, apartments, and washing. Mr. J. C. Hayward, Clerk to the Guardians.

Rating Clerks, Kensington Borough Council.
April 5. Two additional clerks in the rating section of the borough treasurer's department; commencing salary £70 a year, rising to £100. See advt. in last issue. Mr. William Chambers Leete, Town Clerk.

Relieving Officers, Lambeth Guardians.
April 3.—Commencing salary £150 a year. See advt. in this issue. Mr. R. Greenwood, Acting Clerk.

Road Foreman, Walsall R.D.C.
April 4.—Applicants not to exceed 45 years of age; salary 26s. per week. Mr. W. P. Young, District Surveyor, Rushall.

School Principal, Cape Colony School Board.
April 15.—As above, at the Boys' High School, Oudtshoorn, C.C., South Africa. Salary £320 a year, with prospect of advance, and with house allowance one-fifth of salary. Mr. E. Dey, Town Clerk and Secretary to the School Board, C.C.; and Messrs. Staley, Radford, and Co., 2, Fenchurch Street, E.C.

Official Advertisements.

COUNTY BOROUGH OF GREAT YARMOUTH

ASSISTANT INSPECTOR OF NUISANCES.

WANTED by the Health Committee, an ASSISTANT INSPECTOR of NUISANCES. Candidates must have had experience and training in the general duties of an Inspector of Nuisances, and must hold the qualifying certificate for an Inspector of Nuisances granted by the Sanitary Institute.

The person appointed must reside within the Borough, and follow no other occupation. He will also be required, in addition to performing the ordinary duties of an Inspector of Nuisances, to act as an Inspector under the Sale of Food and Drugs Acts.

The commencing salary is £100, with an annual increase of £5 to a maximum of £125.

Applications in candidate's own handwriting, stating age (not to exceed 35 years), present and previous occupation, enclosing copies of three recent testimonials (which will not be returned), and endorsed, "Assistant Inspector," to be sent to me on or before Thursday, the 6th April, 1905.

Canvassing members of the Corporation will be a disqualification.

W. EDGAR STEPHENS,
Town Hall, Great Yarmouth. Town Clerk.
27th March, 1905.

Surveyor, &c., Ham U.D.C.
April 3.—Mr. H. J. Mannings, Richmond, Surrey.

Surveyor, Worksop U.D.C.
April 5.—Salary £150 a year: two road foremen employed; 54 miles of highways. Mr. George H. Featherston, Clerk of the Council.

Tramways Inspector, Birmingham Corporation.
April 12.—Salary £4 per week, inclusive of all overtime and expenses. See advt. in this issue. Mr. John Price, City Engineer and Surveyor.

Veterinary Inspector, Surrey County Council.
April 5.—A duly qualified veterinary surgeon as above. Mr. T. W. Weeding, County Hall, Kingston-on-Thames.

Woman Attendant, Bermondsey Guardians.
April 3.—For day duty at the workhouse. Salary £26 a year, rising to £32. Mr. E. Pitts Fenton, Clerk to the Guardians.

Youth and Boy, Plymouth Guardians.
April 3. As above respectively in the rate office; youth not to be under 19 years of age. Salaries: Youth, £35 a year; boy, £13 a year. Mr. W. Adams, Clerk to the Guardians.

LONDON, EDINBURGH AND GLASGOW ASSURANCE COMPANY, Limited.

ESTABLISHED 1881.

LIFE. ACCIDENT. INDUSTRIAL.

EXTRACT from TWENTY-FOURTH ANNUAL REPORT,
Accounts and Balance-Sheet to 31st December, 1904.

The Revenue Accounts of the Participating, Non-Participating, and Accident Branches continue to show well-sustained progress.

The total Revenue for the year, including Interest (but exclusive of consideration for Annuities granted) was **£518,797 15s. 3d.**, as compared with **£487,882 2s. 10d.** in the previous year, showing an increase of **£30,915 12s. 5d.**

The Assurance Funds were increased during the year by **£91,799**, and now amount to **£650,965.**

The Income from Interest, Dividends, and Rents for the year amounted to **£22,026**, being an increase over 1903 of **£3,769.**

The amount standing to the credit of the Profit and loss Account of **£20,370**, compares with **£17,891** in the previous year.

The total Claims and Grants paid during the year amounted to **£194,745 13s. 2d.**, which makes the total amount of Claims and Grants paid by the Company **£2,381,604 3s. 1d.**

S. BARCLAY HEWARD, *Chairman.*
T. V. COWLING, *Secretary.*
THOS. NEILL, *General Manager.*

Chief Office: Insurance Buildings, Farringdon Street, London, E.C., 15th March, 1905.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
THE LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CARTOONS.
Specialists in Photo.-Litho,
Photo-Copies, and Sun Prints,
VACHER & SONS. Westminster.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS.
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GARDEN FURNITURE.
S. CLARK & CO.,
Compton Works, Canonbury Road, N.

GAS AND WATER ENGINES.
JAMES MILNE AND SON, LTD.,
Milton House Works, Edinburgh.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

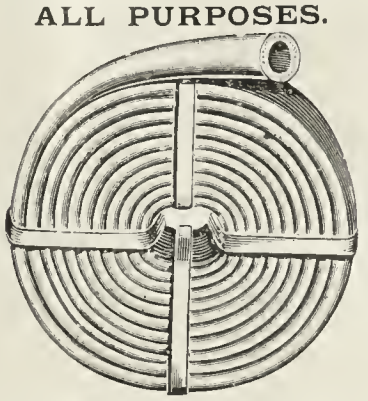
WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

SHEATH BROTHERS,

India Rubber Hose,

SUCTION & DELIVERY FOR ALL PURPOSES.

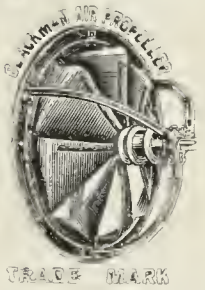
BOROUGH COUNCILS AND RAILWAY COMPANIES.



WASHING URINALS AND FLUSHING SEWERS.

87, CITY ROAD, LONDON, E.C.

BLACKMAN



ELECTRIC FANS.

GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

PHENOZONE
SOAP

Has been proved to be the most efficient Cleanser for Mosaic and Tesselated Pavements, Marble Floors, Swimming and Slipper Baths, &c., after several years' use in numerous Public Baths, Electricity Stations and other Establishments.

"**PHENOZONE SOAP,**" being in powder, is easy to use; it is also a strong, disinfectant.

SAMPLES FREE.

PHENOZONE SOAP CO.,
Wandsworth, London, S.W.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment,
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

Bonds are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds Approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary, SHIRLEY FUSSELL.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION

IS FAR IN EXCESS

OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL 12, SALISBURY SQUARE, LONDON.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM
Edited by ROBERT BLATCHFORD.

You should read "**THE CLARION**" for reliable information as to

MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century,

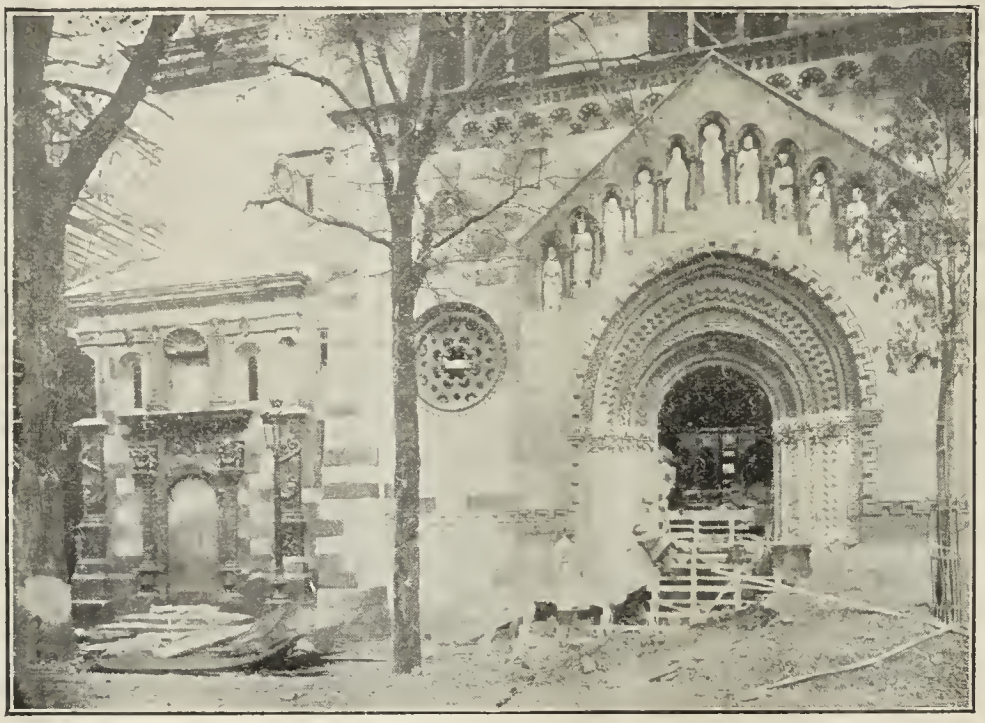
You Must Read "**THE CLARION.**"

Send for specimen copy to "**THE CLARION**" Office
72, FLEET STREET, LONDON, E.C.

EXPANDED STEEL

For ARMOURED CONCRETE & FIREPROOF CONSTRUCTION

FOUNDATIONS.
WALLS.
FLOORS.
ROOFS.
RESERVOIRS.
SEWAGE TANKS.
CONDUITS.
BRIDGES.
GRAIN SILOS.
&c.



Remarkable Example of Cement Plaster Work on Expanded Metal.

IT SAVES 75 PER CENT. IN BULK OF CONCRETE.

Write for Handbook on Practice, Tests, and Tables of Approved Formulæ or any other information.

THE NEW EXPANDED METAL CO., Ltd.,

Telephone—419 Westminster. YORK MANSION, YORK STREET, WESTMINSTER, S.W. Telegrams—Distend, London.

EQUIFEX DISINFECTORS

SATURATED STEAM (Patent)

Adopted by the Metropolitan Asylums Board for the Brook Hospital; H.M. War Office for the ROYAL VICTORIA HOSPITAL, NETLEY, and by the Governments of India, Victoria, New South Wales, &c.; and the recent Disinfection Stations of the Boroughs of Lambeth, Fulham, Battersea, Brighton, &c., &c.

Rapidity in Operation. Absolute Immunity from Damage by Scorching. Economy in Fuel. Automatic Control and Record of the Work Done.

Lists:—A68, PASTEUR FILTERS; D18, STEAM DISINFECTORS; F25, SPRAY DISINFECTORS.

SPRAY DISINFECTORS FOR ROOMS, &c. Thousands in actual use.

THE PASTEUR FILTER

The only Filter awarded Grand Prix Paris, 1900.

OFFICIAL GOVERNMENT STATEMENT.

"Wherever the Pasteur Filter has been applied Typhoid Fever has disappeared."

J. DEFRIES & SONS, Ltd., 146 & 147, HOUNDSDITCH, LONDON, E.C.

TEMPERANCE PERMANENT BUILDING SOCIETY,

4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS

For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager.

BIRKBECK BANK

ESTABLISHED 1851.

2½ per cent. INTEREST

allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST

allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.

STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C.

PEARL ASSURANCE CO., LIMITED.

Chief Offices—London Bridge, City, E.C.

Annual Income	£1,382,000
Funds Increased during year 1904 by ...	£352,000
Claims Paid	£4,263,000

Additional representatives wanted.

P. J. FOLEY, Managing Director.

PATENTS FOR SALE

(ENGLISH AND GERMAN).

One for utilization of the Tide for Motive Power; also patent for Improved Road Paving, or will make other arrangements with any financial gentleman to float a company or syndicate, etc. Circulars containing full particulars will be forwarded by post on application to A. W. Moore, 12, Chatham Place, Hackney, N.E.

Printed and Published by Edward Lloyd, Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE MUNICIPAL JOURNAL.

No. 636.—Vol. XIV. FRIDAY, APRIL 7, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. TWOPENCE.

CONTENTS.

	PAGE
PARCELS BY TRAMWAY AT BRADFORD	321
MUNICIPAL LOANS—III.	323
THE TRUST AT ASTON	325
MUNICIPAL TRADING PAYS	326
SUMMER VACATION SCHOOLS	327
EDUCATIONAL NOTES	327
CORRESPONDENCE:— "Rating of Land Values" (Messrs. Batty and Eckert)	328
LONDON TRAMWAYS (By Mr. J. Allen Baker)	343
THE MUNICIPAL PARLIAMENT (Association of Municipal Corporations)	329-334
NOTES AND ANSWERS	335 & 338
NOTES AND COMMENTS:— The Government and Telephones; Local Authorities and the L.G.B.	337
Women as Councillors; Labour Members and Officials; A Good Example...	338
EMIGRATION OF PAUPER CHILDREN (By Mr. C. Kinlock Cooke, M.A., LLD.)	339
ELECTRICITY SUPPLY	341
OFFICIAL AND PERSONAL	324
TRAMWAY TOPICS	343
TRAMWAYS ANALYSES	344
THE SURVEYOR AND CONTRACTOR	349 &c.

Official Advertisements.

ACTON URBAN DISTRICT COUNCIL.

ACCOUNTANT'S DEPARTMENT.

APPLICATIONS are invited for the APPOINTMENT of an ASSISTANT in the Accountant's Department, at a commencing salary of £100 per annum. Candidates must have had experience of the posting and balancing of Rate Books, the checking of collectors' accounts, and the general work of a Municipal Accountant's Department.

Applications, in candidates' own handwriting, stating age and experience, with copies of three recent testimonials, should reach the undersigned not later than Tuesday, the 18th April, 1905, endorsed, "Clerkship."

SAMUEL LORD,
Accountant to the Council.

Council Offices,
242, High Street,
Acton, London, W.,
5th April, 1905.

Official Advertisements.

CITY AND COUNTY OF KINGSTON-UPON HULL.

TENDERS FOR TELEPHONE CABLE.

NOTICE is hereby given that the Council of the said City and County desire to receive TENDERS for AIR-SPACE TELEPHONE CABLE.

Copies of the specification, with form of Tender, may be obtained on application to the Corporation Telephone Engineer, Mr. A. R. Bennett, Queen Anne's Chambers, Westminster, London, S.W., on payment of £1 1s., which payment will be returned on receipt of a bona-fide tender. Cheques to be made payable to Mr. T. G. Milner, and sent to Mr. Bennett in his aforesaid office.

Sealed tenders, addressed to me, and endorsed, "Tender for Telephone Cable," must be left at my office, in the Town Hall, by 10 o'clock of the forenoon of Monday, 17th April, 1905.

The Council do not bind themselves to accept the lowest or any tender.

E. LAVERACK,
Town Clerk.

Town Hall, Hull,
4th April, 1905.

MUNICIPAL COUNCIL OF THE CITY OF SYDNEY, NEW SOUTH WALES.

REFUSE DESTRUCTOR AND FLAG-MAKING PLANT.

THE Municipal Council of the City of Sydney, New South Wales, invite Tenders for the Supply and Erection of a six-cell REFUSE DESTRUCTOR, and for a FLAG-MAKING PLANT, at Moore Park, within the City of Sydney, New South Wales.

Conditions of Contract, Specifications, and Tender Forms may be obtained on application to the Acting Agent-General for the State of New South Wales, Victoria Street, Westminster, S.W.

Tenders will be received up to Tuesday, 30th May, 1905, addressed to the Town Clerk, Town Hall, Sydney, New South Wales, endorsed, "Tenders for Destructor and Flag Plant."

THOMAS H. NESBITT,
Town Clerk's Room, Town Clerk.
Town Hall, Sydney,
9th February, 1905.

PERFECT HANDWRITING is a rare accomplishment. Our new scientific method ensures perfect penmanship; tuition by post at moderate fees; remarkable results.—Send stamp for explanatory booklet No. 62, Alston's Commercial College, 9, Grimshaw Street, Burnley.

Official Advertisements.

FLEETWOOD URBAN DISTRICT COUNCIL.

SEWERAGE DIVERSION WORKS.

APPOINTMENT OF CAST IRON PIPE INSPECTOR.

THE Fleetwood Urban District Council invite applications for the APPOINTMENT of a fully qualified INSPECTOR OF CAST IRON PIPES, to test pipes which are to be made in the Staveley District.

Applications, which must be made only upon forms to be obtained from the undersigned, will be received at this office up to 2.0 o'clock p.m., on Saturday, the 8th day of April, 1905, endorsed, "Inspector of Pipes."

By order.
JOSEPH TILDSLEY,
Town Hall, Clerk and Accountant.
Fleetwood,
28th March, 1905.

FLEETWOOD URBAN DISTRICT COUNCIL.

SEWERAGE DIVERSION WORKS.

APPOINTMENT OF INSPECTOR OF WORKS.

THE Fleetwood Urban District Council invite applications for the APPOINTMENT of a fully qualified INSPECTOR OF WORKS, skilled in the construction of brick and pipe sewers and sea outfalls, to act under the Engineer and Resident Engineer.

Applications, which must be made only upon forms to be obtained from the undersigned, will be received at this office up to 2.0 o'clock p.m., on Saturday, the 8th day of April, 1905, endorsed, "Inspector of Works."

By order.
JOSEPH TILDSLEY,
Town Hall, Clerk and Accountant.
Fleetwood,
28th March, 1905.

METROPOLITAN ASYLUMS BOARD.

CLERK and STOREKEEPER REQUIRED, at High Wood School, Brentwood, Essex (accommodating about 300 children suffering from ophthalmia). Salary, 48s. per week, rising by 1s. per week to 50s., with dinner and tea daily.

Candidates must have a knowledge of the Poor Law system of accounts, and be able to keep all the accounts of the institution. Preference will be given to those with practical experience in the receipt and issue of stores.

Forms of application can be obtained at the Office of the Board, Embankment, London, E.C., by forwarding a stamped addressed envelope, and such forms, duly filled up, must be returned to that office by ten a.m. on Friday, 14th April.

3rd April, 1905.

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

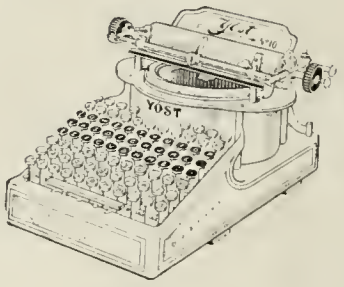
"Cadbury's is the standard of highest purity."

TO EDUCATION COMMITTEES AND MUNICIPAL AUTHORITIES.

YŌST

THE TYPEWRITER FOR BEAUTIFUL WORK.

NO RIBBON.
NO SHIFT-KEY.
NO COMPLICATIONS.



85 CHARACTERS.
LIGHT TOUCH.
QUIET AND CONVENIENT.

Send for Booklets "The Yost in Schools" and "The Yost in the Municipal Offices."

THE YŌST TYPEWRITER COMPANY, Ltd., 50, Holborn Viaduct, London, E.C.

BRANCHES IN ALL LARGE TOWNS.

These Figures Speak for Themselves.

In the last **King's Scholarship Examination (1904), Fifty-six** were successful in gaining places in the First Division, First Class. Of these

FIFTY-THREE used PROFESSOR MEIKLEJOHN'S SERIES.

SEND FOR COMPLETE CATALOGUE.

MEIKLEJOHN & HOLDEN, 11, PATERNOSTER SQUARE, E.C.

ILLINGWORTH, INGHAM, & CO., LTD.

MANUFACTURERS OF

School Desks and Furniture.

Catalogues and Estimates on Application.

CHIEF OFFICES AND WORKS, LEEDS.

The

Municipal Journal.

No. 636.—Vol. XIV. APRIL 7, 1905

BRADFORD TRAMWAY DEVELOPMENT.

Another Municipal Parcels-Carrying System. Comparisons with Manchester. Reduction of Cost and Increased Public Convenience. No Opposition from Parcel-Carrying Companies. The Question of Inter-Communication. Glasgow, Cardiff, Portsmouth, Rotherham, and other Places Considering the Adoption of the Scheme.

IN the new tramway development, which caters for the carriage and delivery of parcels the Bradford Corporation's undertaking, has done and is doing some admirable pioneer work. Ever since the tramways system came into the hands of the council, parcels traffic has been dealt with, although in a somewhat haphazard way. There was no organised method of collection and delivery, and a general charge of a penny per parcel was made, but even under these disadvantageous conditions, something like 250,000 parcels were carried annually. Like the good business men they are, the members of the Tramways Committee saw they had "struck a vein" which would pay for developing, and the result of their activities is the inauguration of a properly constituted parcels department.

In comparison with Manchester, Bradford does not hold such a fortunate position in regard to the proportion of population to street route. The latter's 48½ miles serve 324,000 people, whereas in Manchester 79½ miles serve a population of 750,000. In the former case this works out at an average population of 6,680, and in the latter, of 9,434 per mile. This disparity simply means that Manchester will in course of time be able to show a better financial record, but the value of the public service rendered will be just as great in Bradford.

The method of dealing with the parcels varies according to the districts from which they are drawn. In the centre of the city, full advantage is being taken of the adaptation of the petrol motor to this class of work. Three De Dion Chassis were purchased, and two of these have been fitted with vans at the Thornbury works of the department, while the third will be completed in a short time. The vans perform both collection and delivery within a radius of half a mile from the Town Hall. So far, the experience of the working of the motor-vans has been in every way satisfactory. The results show that, given sufficient traffic, not only have the motors the advantage over horse vehicles in regard to speed and cost—which are the two primary considerations—but it is found that wear and tear, and also risk of damage to parcels, are much reduced.

ONE OF THE MOTOR VANS.

One of the most important parts of the scheme was the establishment of forty-eight agencies, or sub-offices, so situated as to serve practically every part of the city, and these offices are effectively linked up by the combined working of the cars, the motor-vans, and a number of messenger boys. These boys, who are attired with smart uniforms, and receive wages of eight shillings a week, are provided with light, strong basket carts. Parcels handed in at an outside sub-office are conveyed by the lads to the nearest tramline, and placed in charge of the driver. At the various termini the cars are met by other boys, who take the parcels to the central depot. Here they are quickly sorted out; those for other outside districts are packed in wicker

skeps or in bags, and taken by boys to the proper cars, while those for the city area and railway stations are promptly delivered by motor.

The parcels forwarded by car are in turn received by the boys from the sub-offices, whence they are delivered. The hand-carts are found to be very useful. They are provided with waterproof covers for wet weather, while some, with lids, are fitted with locks, so that the more valuable articles can be safely carried in them. In view of the fact that the Corporation accepts responsibility up to £5—subject to proper packing, and the insurance of articles of special value—this preventive measure against pilfering is an important one.

The distance to which the operations of the boys is limited is half a mile from a tram route, and within this distance they collect as well as deliver. Between the hours of eight in the morning and half-past six at night the sub-offices need not be used. Parcels can be handed to the conductors of cars travelling citywards, the carriage being paid to the conductor, whose number the sender is asked to take, in case complaint should be necessary. All parcels are entered on delivery-sheets, on which signatures are obtained.

In view of the extensive organisation necessary for dealing adequately and speedily with the traffic, it was obvious that the old rate of a penny per parcel could not be maintained, and a graduated scale of charges has been issued. This begins at 2d. for parcels up to seven pounds, 3d. is charged for fourteen pounds, 4d. for twenty-eight pounds, and 5d. for fifty-six pounds. It was to the manufacturers and large shopkeepers, however, that the department had to look for the bulk of the traffic, and for these a contract scale was drawn up. For parcels up to twenty-eight pounds, 1,000 tickets are supplied for £6 10s. 0d., 500 for £3 5s. 0d., 120 for 17s. 6d., and 60 for 9s.; for parcels up to forty-two pounds, 500 tickets cost £3 15s. 0d., and 1,000 tickets for fourteen-pound parcels are issued for £5 10s. 0d. All that is necessary is, for the sender to affix tickets to the parcels, according to their weight, and hand them to a messenger boy or conductor. Most of the big firms in the city have availed themselves of this ticket system, and shopkeepers are supplying them to their customers at the reduced rates, so that the practice of having goods sent home by car is rapidly growing. The tickets bear the names of the firms to which they are issued, and are consecutively numbered. Stamps are also sold to the general public at ordinary rates, just, in fact, as post office stamps are, and as parcels bearing them involve a very small amount of clerical work the system is being energetically pushed.

The question of inter-communication with other towns is a highly important one. Bradford is linked up by tramlines to Halifax, Wakefield, Leeds, the Spen Valley district, Dewsbury, and Batley. With the latter three places a brisk trafic has been already developed, and arrangements are nearly completed with Halifax. The local deliveries have also been extended, at about double rates, to Bingley, Calverley, Pudsey, and Brighouse, a large number of the parcels of goods for dyeing purposes now being carried to and from the latter town. Arrangements are also nearing completion for the interchange of parcels with Manchester, and this will open up great possibilities of future development. At each place parcels will be packed in bulk and despatched by rail to the tramway depot, through charges being quoted which cover, not only the cost of rail carriage, but that of collection and delivery by car. This is the method adopted by the great carrying companies, and the more it is developed by the tramway departments, the greater will be their financial success. At the present time the committees at Glasgow, Cardiff, Portsmouth, Rotherham, and other places are considering the adoption of the system, so that interesting developments may be expected in this direction. The cost of sending parcels to those who have to pay is largely reduced, and another advantage is that the tramcars offer a unique method of collection and delivery, people being able to take advantage of the cars who have hitherto not been reached by the usual agencies, and who have therefore been compelled to carry their parcels to stations. In order that the accounts between the towns concerned may be properly adjusted, the system of way-billing employed on railways has been adapted to the tramways traffic, and by this means the desired end will be attained without difficulty.

Bradford is following the lead of Manchester in offering facilities for storing goods in bulk, and delivering small quantities on order to retail traders in the city. Several wholesale firms have taken spaces, and the superintendent is conducting negotiations with a number of others. Stock-books are kept for each firm, and a return of quantities disposed of, and on hand, is furnished each week. The advantages to the small trader are obvious. Another minor feature of the scheme is an arrangement for distributing parcels of newspapers to the newsagents in all parts of the city at a contract rate of a penny per parcel. When the packages are received from the publishing offices, they are at once sorted and taken to the respective cars, the boys travelling with the drivers for the purpose of effecting delivery. Special arrangements are also made for the convenience of Saturday night shoppers, and in every possible way the public service is being considered. The extent of this service it would be impossible to estimate fully, and the parcels-sending public have already reached the stage of wondering how they would manage without the system. In Bradford there are six district parcel-carrying companies, and it is significant that no public opposition of any kind has been raised against the corporation project.

THE MESSENGER BOYS WITH HANDCARTS.

The chief officials of the tramways department have thrown themselves very heartily into this scheme. All the details were arranged by Mr. C. J. Spencer, the general manager; Mr. C. E. Hobson, the new parcels superintendent, and Mr. F. Schofield, traffic superintendent.

In regard to future prospects, Mr. Hobson expressed himself optimistically to a representative of this Journal:—"It will become an important business," he said, "and I believe that in the near future the tramcars will be the only means used by the bulk of the people for sending their parcels about the city. The practice of leaving parcels at the shops for conveyance by car will continue to grow, and the manufacturers will find the service become increasingly useful. It is true, as has been stated, that we are competing with the post office local traffic, but we shall also get many parcels which people, who could not afford to send through the post, would otherwise carry themselves. We are also proving extremely useful to the newspaper proprietors, as it is certain that no ordinary agency could perform the work of delivering news parcels in the way we are able to."

MUNICIPAL LOANS—III.

Advantages of Borowing by Stock to Authorities and Investors. First Authority that Issued Stock by Statutory Permission. Success of the Issue Incites Others to Follow. The Era of the Private Act. Enormous Growth of Listings. The First County Council to Issue Stock. Issues in England, Scotland, and Ireland. Municipal Stock Freely Quoted. Repressive Restrictions, and a Bill to Remove Them. The Metropolitan Water Board.

[FROM A CORRESPONDENT.]

THE advantages of stock issues, both to lenders and to investors, are so obvious and so great, that there is little wonder local authorities began early to resort to so convenient a method of raising money, and it is almost incredible that thirty years elapsed from the time of the first private Act before the Legislature afforded general facilities for such flotations. It is an immense convenience to an authority to be able to borrow on a continuing stock, repayable at a fixed date, instead of on bonds that have frequently to be renewed, and it is no small benefit to an investor to hold at once practically a permament security and yet one that is easily transferred, either in whole or in part, should he wish to realise his capital. There is, of course, the drawback of a limited market, if the stock should be of small amount; but that is obviously a question of common sense, and no authority should attempt to issue stock, even supposing it could obtain the necessary permission, if conditions are such as to prevent a ready circulation.

Early Stock Issues.

The Metropolitan Board of Works was the first body to secure statutory permission to issue stock. This was in 1869, and the rate of interest was originally 3½, and afterwards 3 per cent. The Board, before it was superseded by the London County Council, made sixteen issues, amounting altogether to £27,906,013, for which it was offered £95,090,158 by the public. It never placed its 3½ per cent. stock at a lower price than 94½, and the average realised was £98 2s. 9d. The 3 per cent. stock, which was first issued in 1881, and found itself in competition with higher interest-bearing municipal securities, did not have so good a record, the average price obtained being £97 12s. 6d. With one exception, all the Board's issues were made on the tender system, and that exception was its most conspicuous success, so far as subscriptions were concerned; for £2,600,000 it received applications for £21,236,750—a wonderful achievement thirty years ago. The stock issues of the succeeding County Council are so much a matter of modern history that a summary of the results will suffice. Without counting this year's loan, the Council has made fifteen issues, amounting to £35,950,000, of which £13,950,000 has been in 2½ per cents. and £22,000,000 in Threes. For this total it has been offered £337,369,490, and the average price for the 2½ per cent. stock has been £95 8s. 0d., and for the 3 per cent. stock £95 11s. 3d. All the 2½ per cent. stock was placed by tender, but most of the Threes have been issued at a fixed price—a method which gives the small investor a better chance.

The success of the Metropolitan Board of Works (Loans) Act, which not only enabled the Board to raise money easily and cheaply, but also enabled it to place its finances on a much sounder footing by consolidating its debt, soon led the provincial municipalities to emulate its example. Manchester was the first to follow suit in 1872, and after that Bradford, Leeds, Leicester, and other big towns soon fell into line. The following are the authorities which obtained powers to make stock issues under private Acts up to the time when the general legislation of 1888 and 1890 came into force:—

1869.
Metropolitan Board of Works.
1871.
Lincoln.
1872.
Manchester.
1873.
Bradford.
1874.
Lee Conservancy.
Wigan.
1876.
Heckmondwike Local Board.
Middlesbrough.
Newport (Mon.)
1877.
Ashton-under-Lyne.
Leeds.
Rathmines and Pembroke Main Drainage Board.
Tyne Improvement Commission.
1878.
Clitheroe.
Leicester.
Weston-super-Mare Improvement Commission.
1879.
Blackburn.
Blackpool.
Cardiff.
1880.
Birmingham.
Cork.
Lancaster.
Liverpool.
Nottingham.
Oldham.
1881.
Birkenhead.
Bristol.
Hull.
Lancashire Court of Quarter Sessions.
Reading.
Stalybridge.
Swansea.
1882.
Bolton.
Derby.
Dundee.
Essex Court of Quarter Sessions.
Halifax.
Huddersfield.
Macclesfield.
Newcastle-upon-Tyne.
Northampton.
Rotherham.
Tynemouth.
Wolverhampton.
1883.
Burnley.
Glasgow.
Heywood.
Longton.
Portsmouth.
Preston.
Sheffield.
1884.
Chester.
Croydon.
Dewsbury.
Rochdale.
Windsor.
York.
1885.
Bury.
Eastbourne.
Hastings.
Rathmines and Rathgar Township Commission.
Southampton.
Southport.
Sunderland.
Worcester.
1886.
Brighton.
Leamington.
Metropolitan Police Commission.
Swansea Harbour Trust.
Torquay.
1887.
Carlisle.
Darwen.
New Shoreham Harbour Trust.
Plymouth.
Tees Conservancy.
Wakefield.
Weymouth and Melcombe Regis.
1888.
Cork Harbour Commission.
Greenock Harbour Board.
West Ham.
1889.
Belfast.
Belfast City and District Water Commission.
Cheltenham.
Dublin.
Norwich.
Scarborough.
Stockton-on-Tees.
Taunton.
Waterford.
West Bromwich.
Wisbech.
1890.
Accrington.
Bray Township Commission.
Douglas (I. of Man).
Oxford.
Tunbridge Wells.
Walsall.
1891.
Dover Harbour Board.
Newark-upon-Trent.

Surrey Leads the Counties.

The first county council to issue stock under the 1888 Act was Surrey, which broke ground in 1892, and since then Dorset, Somerset, Devon, Glamorgan, Hants, Stafford, West Sussex, Middlesex, and Herts have consecutively appeared in the field. Some of the councils have made several issues, and the total stock placed altogether up to the end of the financial year 1903-4 was £2,759,378. Richmond (Surrey) was the first corporation to obtain a consent order under the 1890 Act, and that was not till February, 1892. No orders were granted in 1892-3, but in 1893-4 eleven were issued, and up to the end of 1903-4 the number was 140, representing fifty-six authorities, and the amount of stock authorised under them, after deducting cancellations, was £19,644,472. The bulk of these bodies are, of course, corporations; but the subordinate boards include the Barry, Heston and Isleworth, Mountain Ash, Pontypridd, Shipley, Todmorden (now a corporation), and Weston-super-Mare Urban District Councils, and the miscellaneous authorities which have legislated themselves within the scope of the Act comprise the Chesterfield Gas and Water Board, the Derwent Valley Water Board, the Hebden Bridge and Mytholmroyd Gas Board, and the Southport, Birkdale, and West Lancashire Water Board. The passing of the 1890 Act did not, of course, prevent authorities from continuing to obtain powers under statutes of their own to issue stock, and several of them have elected to do so, though they do not thereby necessarily escape the regulations of the Local Government Board. Amongst these are Ipswich, Salford, Swansea, Todmorden, Loughborough, and the Rhyl Urban District Council; whilst independent bodies which have also secured stock-issuing powers, and do not come under the provisions of the 1890 Act, are the Thames Conservancy, the Southampton Harbour Board, and the Mersey Docks and Harbour Board. The Ramsey Town Commission, being an Isle of Man authority, also had to obtain private legislation to make its stock issue in 1896.

Scotland and the Act.

Under the Local Authorities Loans (Scotland) Act, a comparatively small number of issues have taken place. The largest stock-floating municipalities across the Tweed—Glasgow and Edinburgh—possess their own Acts, and Paisley and Dundee have also floated stock by virtue of private measures. The burghs of Brechin, Coatbridge, Perth, Dunfermline, Falkirk and Inverness, and the Dundee School Board, have, however, availed themselves of the Loans Act, the total sum authorised to be raised being £637,700. No county council has resorted to the Act.

The Case of Ireland.

There is no general legislation providing for the issue of stock by local authorities applying to Ireland, as has already been stated, in the same way that there is in Scotland, but county councils can float stock under the 1898 Act, and by the consent of the Irish Local Government Board urban authorities can avail themselves of the provisions of the English 1890 Act. No county has ever issued stock, but forty consents have been given to the corporations of Cork, Waterford, Drogheda, Clonmel, and Londonderry, and to the urban district councils of Blackrock, Wicklow, Pembroke, Dundalk, Lurgan, Kingstown, Tralee, Lisburn, and Killiney and Ballybrack, the amount involved, allowing for cancellations, being about £837,200. In addition, Irish authorities, besides those already mentioned, which have obtained powers under private measures to issue stock are the Belfast Harbour Commission and the Dublin Port and Docks Board.

A Sure Sign of Popularity.

One of the essential conditions to ensure the marketability of stock or bonds is that they shall be freely quoted, and there is no better proof of the popularity into which municipal securities have jumped in recent years than the rapidly-increasing amount appearing in the "Official List." We need take only the London Stock Exchange as affording sufficient evidence of this trend, though there are a number of stocks quoted on provincial exchanges which are not listed in the metropolis. In what may be termed the modern London list, the first municipal issues to be quoted were the bonds of the City Corporation, in 1867. Then the Metropolitan Board of Works appeared with its stock, in 1869; but it was not till 1878 that provincial issues began to be quoted. In that year, Leeds (in January), Manchester (in March), the Swansea Harbour Trust (in June), and Stockton-on-Tees (in September),

all made their bow to the investor through this channel, and every succeeding year has added to the number in a steadily increasing ratio. In order that our readers may trace that rise uninterruptedly, we give the amount outstanding in the "Official List" at the end of every year since and including 1867:—

	£		£
1867	965,000	1886	65,991,648
1868	965,000	1887	69,711,424
1869	3,603,674	1888	71,646,075
1870	4,203,674	1889	74,053,239
1871	5,137,979	1890	75,485,011
1872	5,271,979	1891	78,822,288
1873	7,155,013	1892	82,327,412
1874	10,396,913	1893	91,691,608
1875	10,623,013	1894	96,530,000
1876	11,973,013	1895	106,391,632
1877	13,703,613	1896	108,822,113
1878	18,945,185	1897	118,497,096
1879	26,391,131	1898	123,559,765
1880	30,871,970	1899	125,843,432
1881	38,427,440	1900	135,294,947
1882	42,964,544	1901	139,032,056
1883	46,003,948	1902	154,571,149
1884	55,511,136	1903	166,328,320
1885	60,770,324	1904	199,862,937

A Bill to Remove Restrictions.

Local Loans stock, of which there is £62,408,768 outstanding, has not been included in the above figures. Of the leading provincial cities, other than those mentioned, whose securities are now quoted, Liverpool appeared in 1880, Birmingham in 1881, Bristol in 1882, Glasgow and Newcastle-upon-Tyne in 1884, Sheffield in 1887, Dublin in 1890, Edinburgh and Bradford in 1894, and Belfast in 1895. The dealings in municipal stocks would doubtless be much greater but for the restrictions of the Trustee Act of 1893, which limits investments in such securities to those issued by towns of over 50,000 population and by composite boards having large rateable values. It is these restrictions which a Bill introduced in the present session of Parliament by Sir Albert Rollit and Sir James Woodhouse is intended to remove. The effect of the Trustee Act as it stands is to confine investments to 44 per cent. of the total of corporations stocks quoted, and the only special authorities that escape the law are the Belfast City and District Water Commission and the Edinburgh and District Water Trust. The biggest individual amounts now quoted in London are the following:—

	£
London County Council	63,761,638
Metropolitan Water Board	27,784,609
Liverpool	9,771,682
Manchester	9,693,999
Birmingham	8,200,600
Leeds	6,857,114
Sheffield	4,132,425
Nottingham	3,246,723

In addition, the cities mentioned below have stock issues outstanding to the amounts specified, the bulk of which is quoted on local exchanges:—

	£
Glasgow	6,246,266
Edinburgh	2,797,000
Belfast	2,136,730
Dublin	1,613,305

Other Securities.

No detailed reference has been made to the Metropolitan Water Board, as the circumstances of its creation and the consequent issue of stock are too recent to require explanation. A concluding reference may be made to foreign and colonial municipal securities. In the modern "Official List," their first appearance was in 1857, the amount quoted being £735,000. These figures have since been enormously added to, and at the end of last year the aggregate was £52,572,115. The principal individual totals are £6,214,800 attributable to Rome, £5,845,000 for which Melbourne authorities are responsible and £3,876,576 assignable to Montreal. An indirect proof of the large amount of home municipal securities now held by investors is furnished by the last report of the Inland Revenue Commissioners, which shows that the gross interest from such securities, and from loans charged on rates, assessed for income tax, was £7,028,569; in 1891-2, when the amount was first separated, it was only £3,700,000.

OFFICIAL & PERSONAL.

GLASGOW TOWN CLERKSHIP.

Why Mr. Prescott Withdrew.

As we announced in last week's issue, Mr. R. M. Prescott, the Town Clerk of Fulham, who was the recommended candidate for the Glasgow vacancy, withdrew from the contest at the last moment. The following is the letter which Mr. Prescott sent to the Lord Provost:—

"St. Enoch Station Hotel,
"Glasgow, March 30, 1905.

"My Lord Provost,—Since arriving in the city, preliminary to the proposed interview to-day, I have ascertained the strong local feeling that exists against the appointment of an English lawyer to the Town Clerkship of Glasgow. In the face thereof, I have decided to crave the leave of the special committee to withdraw my candidature.

"I thank your lordship and the members of the special committee for the recommendation, after long, careful, and deliberate consideration of the merits of my candidature, that I, a stranger, with no local advantage and nothing to aid me but a record of hard and, I hope, useful work in the municipal service, was deemed worthy to hold the important office to which, through public competition, I aspired.

"Had I been called to service in your city, I doubt not that the Council and the citizens would in due course have conceded that the committee's recommendation was, after all, not inimical to the best interests of your great municipality.

"I am, my Lord Provost, your obedient servant, (Signed) R. M. Prescott."

The Corporation sent the whole matter to a Committee for report.

The incident has drawn from a cynical correspondent the following poetical effusion:—

"NO ENGLISH NEED APPLY!"

"Scotland, yet!" the people cry.
"Ours," "Us," "I," "Me," "Mine," and "My."
Monopoly of brains and wit:
Englishmen, remember it!

Cuckoos lay in other nests,
Gaining vested interests:
Reap the harvest undeserved.
Ingrate's game—all rights reserved!

Tour in Scotland—month or so:
You come back! Your money? No!!
Bleed you dry! You trust friend Mac!
He'll run you down (behind your back).

As bees buzz round a honeycomb,
So Scotsmen round an English home:
They come—they stop—they fix their teeth,
Exchanging Scotch for English heath!

For Scotland's hills they ever yearn!
But (funny thing!) they ne'er return!
A week-end trip, by friend's invite,
But back they come on Sunday night.

We English love the open field,
And, licked in honest fight, we yield:
We let a Scotsman keep his berth,
Not make his life a hell on earth!

But if the "rule of brogue" applies
(Put on with pain or otherwise),
Let's try it on in England, too,
And bottle up the cuckoo's coo!

Ye bonnie Scots! Pack up! Gae hame!
Your native heath should find you fame!
In future use *your* stockinged cash.
It once was ours; but, dinna fash!

So *you* can find *your* people work,
Emoluments, hard cash, and "perq.":
And estimate, by Scottish law,
The worth of every Scotsman's jaw!

So, Prescott, stay at home, in case
Your screw press Scotland to the base!
We'll treat you canny Scots the same,
Unless, for once, they "play the game"!!

"Anglicus."

BRECON CHIEF CONSTABLE.

At a meeting of the Breconshire Standing Joint Committee at Brecon yesterday, Captain William Morgan Thomas, deputy-chief constable of Swansea, was appointed chief constable of Breconshire. There were thirty-nine applicants for the post, four of whom were selected to appear before the committee.

LEEDS SEWERAGE ENGINEERSHIP.

The Leeds Sewerage Committee met on Tuesday, under the chairmanship of Alderman J. R. Ford, to go through the list of applicants for the new post of sewerage engineer, the salary for which is to be £1,000 a year.

Originally there were sixty-nine candidates, but at a recent meeting of the Committee a selection of twelve was made, and on Tuesday the following were interviewed by the Committee:—Mr. D. E. Lloyd Davis, Birmingham; Mr. J. H. Frogley, Bolton; Mr. G. A. Hart, Birmingham; Mr. E. E. W. Berrington, Wolverhampton; Mr. F. Wood, Fulham; Mr. J. M'Kie, Derby; Mr. H. H. Hellins, Dublin; Mr. A. W. Bradley, Bury; Mr. K. F. Campbell, Huddersfield; Mr. A. Fidler, Northampton; Mr. J. Garfield, Bradford; and Mr. J. S. Pickering, Cheltenham.

The list was further reduced to three, the applicants still under consideration being Mr. Hart, the chief assistant engineer to the Thame and Rea District Drainage Board, Birmingham; Mr. Garfield, Bradford sewerage engineer; and Mr. Fidler, borough engineer and surveyor of Northampton.

It is expected that the final selection will be made during the next few days.

DINNER TO THE TOWN CLERK OF CARDIFF.

A happy and interesting gathering took place at the Whitehall rooms, Hotel Metropole, on Saturday night, the occasion being a complimentary dinner to Mr. J. L. Wheatley, town clerk of Cardiff. The hosts were town clerks and other prominent municipal officials who had served under Mr. Wheatley at Cardiff during his long service there of twenty-six years.

The Mayor of Cardiff presided, and those present included Messrs. W. H. Andrew (town clerk, St. Helens), W. J. Board (town clerk, Rotherham), F. C. Lloyd (town clerk, Croydon), R. A. Reay Nodin (town clerk, Sutton Coldfield), W. E. Stephens (town clerk, Great Yarmouth, and secretary of the dinner committee), J. Davis-Williams (barrister-at-law), Percy H. Gray (deputy town clerk, Waddington), Wm. P. Harding (deputy town clerk, Wimbledon), F. Crawte (deputy clerk, Lieutenancy Office, Shrewsbury), F. A. Brooke (clerk, U.D.C., Heaton Norris), and Robert A. Wheatley (assistant solicitor, Swansea).

The Chairman proposed the loyal toasts, and Mr. J. Davis-Williams gave "The Mayor and Corporation of Cardiff," pointing out the progress of the town and the important position it now occupied. The Mayor replied in an enthusiastic speech, which showed his great interest in the capital of South Wales.

The Town Clerk of Croydon (Mr. Lloyd) submitted the toast of the evening, "Our Old Principal," in eulogistic terms, and dwelt on the cordial relations that had always existed between Mr. Wheatley and the members of his staff. They were all glad to welcome him on that festive occasion, and to congratulate him upon having so long occupied such a distinguished position. They wished him long life and prosperity, and hoped he might for years continue his good work in the borough. (Cheers.)

Mr. Wheatley replied in a very feeling speech, in the course of which he recalled various incidents of his connection with many friends around the table. He was deeply sensible of the honour done him that night, and would always treasure the good feeling and kindness of which that gathering was the exponent.

The health of the Chairman concluded the toast list.

THE TRUST AT BIRMINGHAM.

An Amusing Situation. The British Electric Traction Company, having given too generous terms to Aston with the object of hampering the City Council, now Regrets its Bargain, and is Making Overtures to Get Rid of its Obligations. Will the Corporation Take Over the Lease on the Company's Terms?

OUR readers will remember with what feverish generosity the British Electric Traction Company came to an agreement with the Aston Corporation, with the object of preventing Birmingham entering into an arrangement with that authority. It is now reported that the company desires to relieve itself of its Aston obligations by transferring them bodily to the Birmingham Corporation!

The suggestion made by Mr. Lycett on behalf of the British Electric Traction Company and the City of Birmingham Tramways Company is that the Corporation of Birmingham should replace them as workers of the tramway in the area of the Aston Town Council, and the Aston Public Works Committee has replied that it is prepared to recommend the change, provided Birmingham will take over the obligations of the existing agreement with the company.

Birmingham Amused.

The members of the Corporation are naturally amused at the position of affairs. Alderman Beale and Councillor Walthall were seen by a Press representative on Monday, and he was informed that some preliminary overtures had been made by Mr. Lycett to the Tramways Committee, but no formal proposal had yet been considered. It was pointed out that if the present arrangements had been found disadvantageous to the Tramway Company, it could scarcely be otherwise to the Corporation. The city would no doubt be willing to come to an arrangement whereby Aston should receive the full profits made in its own district, but the guaranteeing of a minimum of £1,250 and the sinking fund for the huge capital amount determined by the arbitration upon Aston's acquisition of the lines was a different matter.

Mr. Walthall said it appeared to him a question whether Aston would release the company, or whether the company would have to go on losing money. Birmingham, while recognising the importance of obtaining complete control of the through route, would certainly not take over the company's liability to provide a certain sum whether it was earned or not.

A Little History.

This is a case of "hoist with your own petard" indeed. It may be recalled that when the Birmingham City Council was promoting its Tramways Bill it entered into negotiations with Aston and other surrounding authorities in the endeavour to come to agreement with them as to the working of the lines which reached into their districts, and of securing their support to the Bill. At that time the British Electric Traction Company, having secured the dominating interest in the lessee companies, was straining every nerve to prevent municipal working in the city. Failing in this, its next move was to offer to the outside districts much higher terms for a new lease of portions of the line outside the city than Birmingham saw its way to give, and to unite the outside authorities with the company in the endeavour to obtain compulsory running powers into the city. This manœuvre was successfully resisted before the Parliamentary Committee, but the Birmingham Tramways Committee promised to consider voluntary arrangements for through working upon equitable terms.

A High Bid.

It may be remembered that upon the Small Heath route an agreement was come to with the Tramway Company upon principles which it has been agreed to extend to other lines. In the case of Aston, an exceptionally high bid was made by the B.E.T. Co. to the Aston authorities, this route being the first to be the subject of municipalisation inside the city. The offer, in brief, was to take a twenty-one years' lease of the Aston Council lines, to equip them for electrical traction, to purchase electrical energy from the Council, to defray sinking charges upon the tramway capital, and to pay to the Council the whole of the net profits as certified by an accountant mutually appointed, or £1,250 per annum, whichever sum might prove the greater.

This tempting offer was reported to the Birmingham Tramways Committee, and a very brief opportunity was afforded it of submitting something better. The committee naturally was not prepared to outbid the company for a concession which possessed to the latter a special value as a lever for obtaining the opportunity to make profits in Birmingham by virtue of running powers. Aston accordingly closed with the offer, and is now working under the agreement which was drawn up to carry it into effect. It would appear as though, having failed in what it hoped for, the Tramway Company now finds its obligation to Aston unduly onerous.

A Suggestion.

But it is surely the height of impertinence for the B.E.T. Co. to suggest that its difficulties should be transferred to the Birmingham Corporation. All of us remember how the Trust and its emissaries have fought the City Council—not always fairly. The only course to take now is for the City Council to refuse to have anything to do with the matter in its present form, and for the Aston Council to insist on the terms of the agreement being carried out. Perhaps, however, a way out might be found—in view of the fact that municipal management is notoriously more efficient and more economical than company management—in some arrangement by which the Corporation could work the lines for the Trust, on the understanding that it was paid for its trouble, and that the company made up any losses that might accrue.

ASTON COUNCIL AND THE SITUATION.

A Tardy "Welcome" to the City Corporation.

The extraordinary situation was discussed by the Aston Town Council on Wednesday evening, on the report from the Public Works Committee, that the Town Clerk had informed Mr. Lycett that, in the event of the city authorities being willing to take the place of the tramway companies, under the agreement of June 9, 1903, the committee would be prepared to recommend the Council to enter into such agreements as might be necessary to bring about that end.

Alderman Evans, referring to the question, asked for the forbearance of the Council. They were in negotiation, he said, with Mr. Lycett with regard to Birmingham taking the offer. They had not been officially approached by Birmingham, though he had had several interviews with Mr. Baker (manager of the Birmingham tramways), who had spoken to him unofficially. Therefore, at the present juncture, he did not think that the matter should be discussed. (Hear, hear.) They would have a report, and, above all, they wanted to have a report from the British Electric Traction Company, as to the profits for the past year. Until those reports had been received, the committee could not say anything further. There was no doubt that when the right time arrived they would either be approached by Birmingham, or they would approach the city authorities, whichever was the correct mode. Until then, discussion would be imprudent. (Hear, hear.)

Mr. James, who seconded the adoption of the report, also urged the unwisdom of discussion. Statements might be made at the moment which would militate against any amicable agreement being arrived at between the lessee company and the Birmingham Corporation. He hoped that the consummation such as that foreshadowed might be brought about. He thought such would meet with the approbation of every member of the Council. (Hear, hear.)

Mr. Haddon said he was astounded at the course events had taken. He insisted that there had already been too much secrecy, and he thought the whole matter should be discussed. The public Works Committee, he contended, was not empowered to enter into any other undertakings without the authority of the Council. Who had authorised the Town Clerk to communicate with Mr. Lycett? It was important that the company should know the attitude of the Council. Mr. Haddon desired to know whether the second moiety of the first year's guarantee contribution from the company had been paid; also the amount necessary to pay the annual contribution to the sinking fund, and the interest thereon. If they had not been paid, the provisions of the lease were violated.

Mr. Goodrich maintained that the tramway company had played for high stakes and had lost. They tried to use Aston as a big stick with which to thrash Birmingham; but that thrashing had not come off. (Laughter.)

Alderman Evans, replying on the discussion, stated that the second moiety of the contribution to the Council had not been paid by the company. No man would be more pleased than he to welcome Birmingham as the managing body. He had said that all along. The tendency would be to welcome Birmingham if they could come to satisfactory terms. They had to remember, however, that before the arrangement was entered into Birmingham was offered the option. (Mr. Haddon: "No, no.") The committee would do everything in its power to bring off the negotiations successfully. He recognised the initial advantages which would arise to the two places. (Hear, hear.)

Mr. Probert pointed out that although the second moiety had not been paid, Aston was on the right side, as it owed much money to the company.

The report was approved.

LIVERPOOL OFFICIALS' SALARIES.

THE salaries of many of the leading corporation officials were reviewed on Wednesday, at the monthly meeting of the Liverpool City Council, a sub-committee having recommended increases ranging from £50 to £300.

In numerous instances, the recommendations were confirmed, but the proposal to increase the salary of Mr. E. R. Pierce, town clerk, from £2,000 to £2,250, was withdrawn, as was also a recommendation to advance that of Mr. E. W. Pierce, the deputy town clerk, from £1,000 to £1,100.

The salary of Mr. Richard Barrow, the city controller, was increased from £1,750 to £1,900, being £100 less than the recommendation, and that of Mr. C. R. Bellamy, the tramways manager, was increased from £1,200 to £1,500 per annum.

CHILDREN AND BLACKPOOL THEATRES.

THIS week, the Blackpool Town Council approved the recommendation of the Watch Committee, prohibiting the admission to local theatres and variety halls of children under twelve years of age, unless accompanied by a parent or responsible adult. There was a full attendance of the public, and the Council's decision, the first known resolution of its kind in the country, was unanimous.

A novel scheme of lending-libraries for the exclusive use of children is to be considered at the next meeting of the Council.

HOW "TRADING" PAYS.

Some of Last Year's Profits. How the Ratepayers are being Relieved from Municipal Enterprises, not only by Contributions towards the Local Funds, but also by Decreased Charges for Public Services and Better Facilities. Tramways and Gas Undertakings. Profits from Yarmouth Beach.

WITH the end of the municipal financial year, the results of the "trading" of the last twelve months are beginning to come in. We shall summarise the figures from week to week, no doubt much to the chagrin—as usual—of our opponents.

BRADFORD TRAMWAYS.

Increased Revenue—15·81 Per Cent.

A statement of the past year's working of the Bradford tramways up to and including March 31st shows that the total number of passengers carried was 47,108,000, as against 39,639,414 during the previous year, an increase of 7,468,586, or 18.84 per cent. The total receipts have been £228,648, as compared with £197,437, being an increase on 1903 of £31,211, or 15.81 per cent.

There has been an increase of 493,510, or 10.85 per cent., in the number of car miles run, and the revenue per car mile has been 10.88d., as compared with 10.421d. last year, or an increase of .459. The total number of cars is 239, and the population served by the various tramway routes is 324,000, which number has been carried no fewer than 145 times.

YARMOUTH'S REVENUE FROM THE BEACH.

The Yarmouth Corporation anticipates a revenue of between £2,000 and £3,000 from the beach, in the form of tolls and stallages this summer.

Last week, the right to sell refreshments in the beach gardens was let by auction, and a rental of £260 per annum was secured for this privilege for three years, while for two small kiosks on the sea-wall rentals of £28 and £34 per annum were obtained for five years.

These kiosks, which cost very few pounds to construct, have paid for themselves over and over again, and will continue to be a valuable asset to the corporation for years to come. A London bidder obtained all the hirings at the auction.

LEEDS TRAMWAYS.

Increased Receipts—6 Per Cent.

The traffic returns of the Leeds City Tramways for the working year which closed on Saturday last, March 25th, show that notwithstanding various concessions in respect of fares and distances, and the effects of bad trade, the revenue for the year amounted to £294,328 3s. 2d., as compared with £277,665 12s. 1d., thus showing an increase of £16,662 11s. 1d., or about 6 per cent.

The extensions opened during the year bring up the total mileage to about ninety miles of single track, along which a total of 7,121,038 miles have been run. As compared with the 6,215,799 miles run in the previous year, this gives the remarkable increase of 905,239 miles, amounting to 15.65 per cent., and nearly three times the increase of 1903-4 over 1902-3.

The number of passengers carried reached the enormous total of 64,223,666, an increase of 3,484,432, or 5.73 per cent., over the 60,739,234 carried in the preceding twelve months.

It will be seen that the increase in car mileage has been at a much greater ratio than the increase in the number of passengers carried, and this accounts for a drop of 0.92d. in the receipts per car mile, which were 10.02d. last year, as against 10.94d. in the previous year, a decrease of 8.4 per cent.

This is, no doubt, to some extent accounted for by such concessions as the extension of halfpenny fares, and the fact that the new lines opened, which, however, are not very extensive, are in the nature of things less remunerative than the lines previously in operation.

The growing extent to which the trams are used by the public is indicated by the fact that, whereas in the year 1903-4 the entire population of the city was carried 136 times, it was carried last year no less than 141 times, with half a ride over; while the receipts average 13s. 1d. for every inhabitant of the city.

In the payment of fares, the nimble penny leaves all other amounts behind, for of the sixty-four million passengers over fifty million were penny "fares." The precise numbers of tickets of the various amounts issued during the past two years were as follows:—

	1902-3.	1904-5.
½d.	4,452,929	4,781,477
1d.	48,886,340	59,778,052
1½d.	864,513	1,424,136
2d.	5,517,993	6,150,880
3d.	1,069,795	1,089,181

The average fare paid by each passenger was 1.099d., which is a little, but very little, higher than the average of 1.097d. for the previous year.

KEIGHLEY'S GAS PROFITS.

For the year ending June 30th, 1906, the Gas Committee reports that, after providing for the cost of the fire brigade, it expects to be able to hand over £5,780 in relief of the rates.

BLACKPOOL GAS.

Profits—£13,000.

Breaking records in the way of profit appears to be quite a favoured hobby of the Blackpool gas department. Last year's profits amounted to just over £18,000, and the whole of this amount was devoted to the reduction of the rates.

The gas manager at that time feared that there would be a falling off of the profits in the present year, and the estimate was reduced to £15,000. But Mr. Chew, the manager, has just announced to his committee that things have turned out better than anticipated, and a profit of fully £18,000 is expected on the year's working.

PROFITS AT AMSTERDAM.

In Mr. Consul Robinson's annual report just issued, some remarkable figures are given, showing the extent to which Amsterdam is engaged in municipal trading and the results obtained. The electric tram lines, the electric supply works, the waterworks, the gasworks, all are amongst the municipality's investments.

The tramways last year carried 31,260,756 persons, and netted £174,329 (receipts); the electric supply works brought in an income of £41,375, of which £22,083 has been put to sinking fund and interest on loans: the waterworks show a total income of £151,796, of which £55,245 goes to amortisation and interest on loans, whilst £8,333 is paid over to the municipal funds; and the gasworks produced £440,970 (total receipts), showing a surplus of £169,508, of which £103,726 is applied to amortisation and interest, a sum of £62,500 being paid over to the municipal funds.

As regards the electric trams, it is pointed out that it is a little early yet to look for the best results, especially as the municipality had to make an exceptionally heavy capital outlay first in buying out the old horse-tram company, and then in laying new rails and constructing new bridges throughout the city.

[The concluding instalment of Mr. Pickmere's article on "Municipal Trading" is unavoidably held over until next week.]

NEWS IN BRIEF.

Accrington Betting News.

The Accrington Town Council, sitting as a General Purposes Committee, has decided to obliterate the betting news in the newspapers in the public library.

Bradford Rateable Value.

The rateable value of Bradford now stands at £1,328,714, as compared with £1,300,884 a year ago. In 1900, the rateable value was £1,192,226, so that the increase during the first half of the present decade is £136,488.

Municipal Picture Post-Cards.

At the annual meeting of the Advertising Committee of the Whitby Urban Council, it was unanimously decided to advertise the attractions of Whitby in London and provincial papers, by pictorial posters and picture post-cards, and to canvass the town for money to defray the expenses.

Stockport Water Bill Passed.

The scheme promoted by the Corporation of Stockport to obtain an additional supply of water from the Kinder River, pending the completion of the works under the Act of 1891, was approved by the Police and Sanitary Committee of the House of Commons last week.

Southport a County Borough.

The draft of the Order constituting Southport a county borough has been received, and is expected to come into force on October 1st, after which date the borough will exercise all the power now vested in the Lancashire County Council, as far as main roads, education, and other matters in the borough are concerned

Salford and Telephones Purchase.

The Salford Finance Committee has recommended the Council to co-operate with other municipalities in urging the Government to prevent the National Telephone Company's undertaking, when purchased by the State, from continuing its present practice of charging lower rates in places in which corporation telephones have been established.

Non-County Boroughs Association.

A largely attended meeting of the Non-County Boroughs Association was held at the Surveyors' Institute last week, under the presidency of Mr. N. W. Helme, M.P., vice-president of the association. Mr. J. L. Wharton, M.P., was re-elected president, Mr. Helme, M.P., vice-president, and the Mayor of Harrogate treasurer. Amongst the other matters discussed were the position of non-county boroughs under the Licensing Act, the action taken by certain counties with regard to the expenses of establishing pupil teachers' centres, the concurrent powers of non-county boroughs with regard to higher education, and bye-laws relating to marine store dealers.

In these days of keen rivalry between the various pleasure resorts throughout the country, municipal authorities are fully alive to the necessity of engaging first-class orchestras for the entertainment of their visitors. In fact, there are many who maintain that the success of Bournemouth, Folkestone, Bexhill-on-Sea, etc., is primarily due to the really first-rate orchestras which are engaged by these towns. Mr. J. Herbert Jay, of 10 and 11, Jermyn Street, Piccadilly, the well-known entertainment manager, is making a speciality of supplying orchestras, military bands, and concert parties for season work at seaside resorts and spas. Mr. Jay controls many of the famous London orchestras, and municipal authorities booking through him may be confident of obtaining the best talent in the market at prices appreciably lower than those of other agents.

SUMMER VACATION SCHOOLS.

Mrs. Humphry Ward's Petition to the L.C.C. Humanising the Lives of the Poorer Children of the Public Elementary School Class. The Genesis and Objects of Summer Vacation Schools in Chicago. A Brief Account of What is Done There, and the Key to the Whole System of Work. The Kindergarten Practically Worked Out. The School Excursion and the Future of the Vacation School.

SIR WM. J. COLLINS, the chairman of the Education Committee, recently presented to the L.C.C. a petition signed by many well-known educationists and public men and women who are keenly interested in the well being of the children in our public elementary schools. The object of the petition is to urge upon the Council the desirability of introducing into the poorer and more crowded districts of London the system of summer vacation schools, which is so successfully worked with civilising results in the American cities of New York, Boston, Chicago, Philadelphia, Newark, and St. Louis.

The petitioners ask the Council to carry out, for itself, the experiment this year, and suggest a grant of 7s. per head for the purpose. The petition will, no doubt, have the careful and sympathetic consideration of the Education Committee, which last year granted the use of two or three schools and equipment for the purpose. Many movements have originated of recent years having for their objects the amelioration of the physical welfare of school children and the development of a side of school life which shall render it more attractive.

Brightening School Children's Lives.

Such institutions as the Children's Country Holiday Fund, with its thousands of participants, who would otherwise never get a glimpse of the green fields or the seashore, are deservedly becoming more common. Another humanising agency is that of the Children's Happy Evenings Association, whose object is to provide a cosy shelter in the dark, cheerless winter evenings for the poor little mites who would ordinarily spend their time in the public streets.

Indeed, modern developments have penetrated the school itself, and have placed at the disposal of the scholars fresh opportunities for acquiring a first-hand knowledge of Nature in the "school journey," and for producing a healthier and manlier set of citizens in the organised school games of the playground. Festivals, too, are not nowadays considered to be outside the purview of education.

The Objects of the Vacation School.

Vacation Schools pre-eminently have for their object the giving of a good time. Children of the very poor cannot amuse themselves. They have little initiative and imagination, and as a rule, without guidance, fail to give suitable expression to their natural desire for amusement and occupation. Vacation Schools satisfy the hunger for occupation by setting the children something to do. They care for the physical welfare of the scholars by carefully organised exercises. The children's ideals of morals and conduct are raised by the direct and indirect instruction given in these schools. For those children who would be otherwise doomed to go through the summer vacation sealess, fresh-airless, and joyless, the Summer Vacation Schools exist.

Their Origin in Chicago.

These schools began in America in 1896 in Chicago, at which time a determined attempt was made to grapple with the problem of the use of the vacation time in the case of the poorer classes of children who, during term, attended the public or parochial schools. The Women's Club was chiefly responsible for the first beginnings, and it was finally arranged that some of the public schools should be opened during the six weeks of vacation for the mornings of five days in the week.

The children were not, however, to go to "school" in the ordinary acceptation of the word, but were to receive a course without books, or pen and ink, which should be directed towards brightening their time chiefly by Nature study, drawing and music, physical culture, and manual work. The assistants were the regular school teachers, chosen from among those who volunteered for this special work, and they were paid an average of sixty dollars (£12) for the six weeks. There were, in addition, some who were strictly volunteer workers.

The Cost.

There are eight Vacation Schools in Chicago, with about 7,000 scholars. The number of teachers is 183, and the cost something like £2,500, of which £1,000 was subscribed by the Board of Education. No books are used, except for recreation. The subjects taught are manual training (boys), drawing, drill, dancing, singing, games, Nature study, weaving, sewing, and cookery, clay modelling, and story-telling. The vacation schools were designed to fight against the evils of the streets, and to influence the home life of the children more directly than is done by the public schools. Consequently, the schools were only opened in the poorest and most congested districts. The key to the whole system is the kindergarten. The primary grades have drawing directed towards reproduction of impressions acquired by the children themselves, and this in a free and recreative, rather than a pedagogical manner. Through the drawing-classes the children pass to manual training, if boys, and, if girls, to sewing or domestic work. There is a complete absence of theory in these classes, but very much actual work, which is directed towards making articles of real use in the pupils' homes.

What the Children Learn to Do.

After manual training, the children may pass on to physical culture, where they have drill with rhythmical movements and ordered games. The latter are particularly meant for home use, as well as at school. Singing is another class, and every morning the course includes classes in Nature study and construction work, upon which rests much of the success of the programme. Upon presentation of a voucher from their teacher, or sometimes the "truant officer," the children are admitted in their order of application. In Chicago, the usual experience is for hundreds to be turned away, because every school is crowded to its fullest capacity—the limit in numbers being fixed by the amount of money and accommodation available for a particular school. The average age of the boys is ten years and of the girls nine years, and the cost works out at 10s. a head for the six weeks. This includes all school work and the cost of the weekly excursion, which is a special feature of the programme.

In addition to the complete schedule of work, some of the schools have specialities. One, for example, goes in for pottery, another for housekeeping classes, while a third makes a feature of kitchen gardens. The scheme of the Vacation School contemplates one excursion each week for each school, which means, as there are eight schools, at least one excursion every day of the six weeks except Saturday and Sunday. One drawback to these excursions has been experienced, viz., that the attendance on the following day frequently falls off. (This is a not uncommon experience in connection with English Sunday School treats.)

A prominent attraction of the Chicago public schools is the decorative work inside the school-rooms. Generally speaking, such decoration is supplied in four ways: (1) by the teachers at their own expense, (2) by loans of pictures from art societies, (3) by gifts of pictures, and (4) by money raised by entertainments or school exhibitions. The schedule of work divides the morning as follows: 9 to 9.45, 9.45 to 10.30, 10.30 to 11.15, and 11.15 to 12.

Special Features at the Burr School.

Two remarkable features of one of the Summer Vacation Schools deserve special mention. At the Burr School there are 100 pupils older than the ordinary scholars. They do not attend the regular routine, but take up such parts of it as they wish. They are the leaders of the neighbourhood, both boys and girls, and the management aims at training them, for example, in cooking or sewing, or in games, with the object of their carrying on the instruction learnt in a more direct way than the younger children ever can, thus more immediately influencing their homes for good. Another feature of this Vacation School is the kitchen garden which serves two useful purposes. First, it is used by the children in the primary grades as an observation ground in aid of commercial geography and Nature study, and secondly, for actual gardening practice under a teacher. Every child has a personal interest in the garden, the upkeep of which costs about £20 a year.

The Future Vacation School.

The development of the Chicago Vacation Schools is undergoing some change. The nine subjects of the programme as arranged at present cannot be considered of equal importance, and the Vacation School of the future may probably tend towards the provision of manual training for boys, and sewing and domestic work for girls, whilst both would receive instruction in physical culture, art, music, and science.

The Vacation School meets an undoubted need, and that in an efficient way, but the discerning of the necessity and the splendid efficiency of the efforts to meet it are both due to the sense, the steady enthusiasm, and zeal which animates the superintendent and teachers of the Chicago Summer Vacation Schools.

EDUCATIONAL NOTES.

Barrow.

The Education Committee is considering an important scheme for training apprenticeships, formulated by Messrs. Vickers, Son and Maxim.

Bradford.

Complaint was made at the meeting of the City Council that the Education Committee minutes did not contain a full record of the proceedings of the committee, and a request was made that a copy of the minutes should be sent to each councillor. The committee is asking for £15,000 more than its estimates for last year.

Bournemouth.

The Education Committee has decided to establish school libraries in every school.

Clitheroe.

The Board of Education is putting pressure upon the Education Committee to build a new school, and to accept the transfer of the Wesleyan school. The National school premises have been condemned us unsatisfactory for permanent use.

Derby.

The Education Committee has received a letter from the Board of Education respecting the defective condition of the voluntary schools in the borough. The Board states that it has no desire to place any unduly heavy burden upon the rates, but it is prepared to consider any proposals of the managers. The education estimates for 1905-6 show a decrease of nearly £3,000.

Dover.

The secondary day school is to be amalgamated with the pupil teachers' centre after the summer vacation.

Dukinfield.

The Education Committee has agreed to ask the Joint Tramways Board to carry children to school on the cars free of charge, or at a reduced fare.

Dundee.

A motion that no teacher in the service of the School Board should be allowed to engage in outside business, either in his own name or under any other name or firm, or as a partner with anyone else, was, after some discussion, withdrawn.

Durham.

The Education Committee proposes to spend the sum of £39,660 in higher education, and has recommended the levy of a penny rate.

Education Rates.

Information continues to reach us of increases in the rate for education for the ensuing financial year. Among those authorities who expect a larger rate are the following:—(Increases in the pound)—Liverpool, 4d.; Kent, 3d.; Leicester, 1d.; Cheltenham, 2d.; London, 2d.; West Ham, 3d.; South Shields, 3d.; Nottinghamshire, 1½d.; King's Norton, 2d.; Bradford, 1d. Five county councils, 45 county borough councils, and 78 non-county borough councils have an education rate exceeding 1s. in the £. The highest are East Ham, 2s. 4d.; Edmonton, 2s. 7d.; and West Ham, 2s. 10d.

Gloucestershire.

The Education Committee has agreed to offer an agricultural scholarship, value £100, tenable at the Royal Agricultural College.

Grimsby.

The Education Committee has decided to subsidise the school magazine of the Municipal College, in spite of some opposition on the part of members of the committee.

Hampshire.

The county authority has a farriery van which is sent to different parts of the county for a month at a time, in order that lessons in farriery may be given by the authority's instructor.

Harrogate.

The Education Committee has agreed to consider the advisability of erecting a secondary school to accommodate 250 pupils.

Hartlepool.

The cost of elementary education for the current year is estimated at 6d. in the £. For higher education a penny rate is to be levied. At present Hartlepool enjoys the distinction of being the seventh highest rated borough for education in the country.

Isle of Man.

The Attorney-General has just introduced a Bill with the object of bringing the Manx system of education into line with the English Education Act of 1902. The Bill provides for a central authority, with five districts, and thoroughly reorganises the present system of school boards.

Kent.

The Education Committee has decided to insure the furniture and contents of both classes of schools in its own insurance fund.

Lancashire.

The Education Authority has agreed to pay the necessary subscription to the County Councils' Association.

Leeds.

The Education Committee has appointed a small sub-committee from among its members, with the object, if thought necessary, of visiting the best types of secondary schools in England or the Continent. Twenty Senior City Scholarships, and thirty Art Scholarships are about to be established by the committee. The committee also proposes to increase the scale of salaries of its teachers, at a cost equal to a halfpenny rate.

Leicester.

At the Education Committee it was stated that the revision of the scale of teachers' salaries would, in ten years, mean an increase of £10,000 for head teachers alone.

London.

Something like consternation has been caused among the secondary schools by the issue of a letter from the County Council, requiring the governors of such schools who wish to receive the council's grants to take over the control, appointment, and dismissal of the assistant teachers, and to amend any scheme which prohibits the transfer of such authority.

Manchester.

The Education Committee has adopted a suggestion of its Chairman to ask the Royal Commission on the Feeble-minded to recommend the Government to pass a Bill empowering education committees to deal with epileptic children.

Middlesex.

Alderman Regester has been re-elected chairman of the Education Committee.

Normanton.

The old-established grammar school is to be converted into a secondary school at a cost of £4,500. The County Council is to be asked to sanction a loan for 30 years for this sum.

Sheffield.

It was reported to the Education Committee that if the classes in the council's public elementary schools were limited to 30 scholars each, the increase on the rates would be 10d. in the £. The number of meals given to children in the elementary schools for the fifteen weeks ended 10th March was 156,173; the sum spent in food reached £611 6s. 8d., at an average cost per head of .92 of a penny.

South Shields.

The Education Committee is considering a proposal that the age at which children should be admitted to public elementary schools should be five.

Tunbridge Wells.

The Education Committee has amended its scale of salaries for female certificated teachers.

Worthing.

The Education Committee's requirements for elementary education were estimated at £2,400, equal to a rate of 4d. in the £.

THE RATING OF LAND VALUES.

(To the Editor.)

Sir,—A simple illustration, drawn from actual facts, will explain and support the proposals in Sir John Brunner's Bill for the Assessment and Rating of Land Value, put down for second reading in the House of Commons on the 14th inst.

In the vicinity of Long Lane, East Finchley, N., there are four building sites of equal area and value. Two of the sites contain small seven-roomed villas, another is encumbered by an ancient wooden tenement one storey high, and one plot is an empty site.

The above properties now appear in the rate-book as follows:—

	Gross value.	Rateable value.	Rate in the £.	Total rates.
	£ s. d.	£	s. d.	£ s. d.
Villa A	30 0 0	24	8 2	9 16 0
Villa B	30 0 0	24	8 2	9 16 0
Tenement C	12 10 0	10	8 2	4 1 8
Plot D	No assessment			
				23 13 8

A valuation of the urban district of Finchley made by us, with a view to arrive at the land value, shows that if land values were rated the rates would be reduced to 6s. 3d. in the £ in this urban district.

Under the provisions of Sir John Brunner's Bill, there would be a separate column for the land value, and the entries would be as follows: —

	Gross value.		Rateable value.		Rate in the £.	Total rates.
	Structure.	Land.	Structure.	Land.		
Villa A	£25	£5	£20	£5	6s. 3d.	£7 16 3
Villa B	£25	£5	£20	£5	6s. 3d.	7 16 3
Tenement C	£10	£5	£8	£5	6s. 3d.	4 1 3
Plot D	—	£5	—	£5	6s. 3d.	1 11 3
						21 5 0

In the case of old wooden tenement C, one-half of the land value now escapes assessment altogether, because the growth of new land value that has taken place is concealed.

Plot D comes into assessment for the first time. The owner of this plot will be stimulated to employ labour and capital or to rent or sell out to those who will. Moreover, by using the uncovered land as allotment, market garden, or occupation land, half the poor-rate and three-quarters of the general district rate are excused. The owners of uncovered land, therefore, must in future resign themselves to be assessed to secure common justice as between holding and holding, and they may look forward to benefit equally with all ratepayers in the increased wealth production and better social conditions that must result from a just basis of taxation.—Yours, &c.,

Batty & Eckert.

20, Grand Parade.
Highgate Station, N.

Nottingham.

At the meeting of the Education Committee, it was decided to support the proposal of the County Councils' Association, to establish a bureau of information, and to subscribe to the association. The estimated expenditure for higher education showed an increase of £554, and that for elementary education £13,400.

Preston.

The Education Committee has just issued an encyclopædic handbook of its work, which contains a mine of information respecting the educational administration of the committee.

Richmond (Surrey).

The arrangements proposed by the Education Committee for the division of liability for fair "wear and tear," was reported, at the last committee, to have been generally approved by the managers of the voluntary schools in the district.

Staffordshire.

The Executive Committee of the council for the extension of higher education has issued a report favourable to the establishment of a future training college to consist of four departments—mining, pottery, a day training college, and a pupil-teachers' centre.

MUNICIPAL PARLIAMENT.

The Assembly of Municipal Authorities in London for the Annual Meeting. The Banquet at the Hotel Metropole, and a Speech by the New President of the Local Government Board. Sir Albert Rollit, M.P., LL.D. on the Outlook. His Spirited Reply to Criticisms Leaves the Anti-Municipalists no Leg to Stand Upon. Full and Official Report.

THE annual meetings of the Association of Municipal Corporations were held in London last week-end, and were attended with every possible success. As is usually the case, the business meeting of the Saturday was preceded by the banquet on the Friday evening, the function taking place this year at the Whitehall Rooms of the Hotel Metropole. The president of the Association, Sir Albert K. Rollit, M.P., presided, and among those present were Mr. Gerald Balfour, M.P., President of the Local Government Board; Sir Edward Carson, M.P., the Lord Mayor of London, Lord Fairfax, the Chinese, Greek, and Siamese Ministers, Baron Suyematsu, the Lord Mayors of York and Leeds, Sir James Woodhouse, M.P., Sir Francis Powell, M.P., Colonel Welby, M.P., Sir Thomas Roe, M.P., Mr. H. S. Cautley, M.P., Baron de Sousa Deiro, Dr. Nansen, Professor Herkomer, Mr. E. A. Cornwall (chairman of the London County Council), Sheriffs Strong and Woodman, Mr. R. L. Morant, Mr. Worsley Taylor, M.P., Mr. A. Goring Pritchard (secretary of the Association), and Mr. Adrian Pollock (City Remembrancer).

The usual loyal toasts were followed by the "Naval and Military Forces of the Empire," proposed by the Lord Mayor of Leeds, and responded to by Colonel Welby, M.P., and Mr. E. A. Cornwall, Chairman of the London County Council, made an exceedingly effective speech in submitting "The Houses of Parliament," to which Sir Edward Carson, the Solicitor-General, humorously replied.

Mr. Balfour and the Outlook.

The speeches were of little municipal interest until that of Mr. Gerald Balfour, who responded to the toast of "His Majesty's Ministers and the President of the Local Government Board," proposed by the Lord Mayor of London. Mr. Balfour was very cordially received, and reminded the assembly that, although he was new to the Local Government Board, he was not new to the work of local government, for, as Chief Secretary for Ireland, he had had to carry through the House of Commons one of the biggest local government measures ever introduced to that assembly, and it became necessary for him then to make himself acquainted with the local government of England.

While declining to be drawn into any pronouncement upon municipal controversies, Mr. Balfour had one or two interesting things to say. There was the question, for instance, of municipal expenditure, which some of his friends regarded with the greatest alarm and apprehension. No doubt municipal expenditure had largely increased. During the last twenty years the amount received by town councils in rates had nearly doubled, and municipal debts had more than doubled in that period. Whether the increase was to continue proportionately, whether the advantages which had been secured sufficiently compensated for the sacrifices made, whether the reproductive undertakings may, on the whole and on the average, be counted upon to more than pay their way and provide for an adequate sinking fund, were questions he would not care to answer offhand: and until those questions were answered it was impossible to strike the balance of advantages and disadvantages fairly.

Then Mr. Balfour struck off for a moment or two into the subject of municipal trading. He was disposed to think that was not so much a question for alarm as for careful and watchful vigilance. (Hear, hear.) It was true that during the last twenty or thirty years there had been a remarkable extension of municipal enterprise. He instanced the tramways. The question was whether a limit could be placed upon these excursions into the sphere hitherto reserved for private enterprise. He was disposed to think that a limit would presently be imposed by the nature and necessity of the case.

Other Toasts.

The toast of "Our Guests" was given by the President, who appealed to the Local Government Board to lengthen the period for the repayment of loans. Professor Herkomer's response took the form of a disquisition upon the kind of pictures which Corporations should place in their art galleries, and he complimented the local authorities that they had hitherto displayed a "singularly correct" instinct in their methods of encouraging art.

Dr. Nansen also replied, and was followed by Baron Suyematsu, whose personality was an interesting one to municipal workers, inasmuch as he has had much to do with the framing of Japan's local government system. In Japan the Local Government Board is a part of the Ministry of the Interior, and the Baron drew general applause when he said that the principle of "trust the people" was the fundamental spirit upon which our ally's scheme of local government administration is based.

"The Lord Mayors, Mayors, and Sheriffs, and the Municipalities of the United Kingdom" was given by Mr. Thomas Rawle, president of the Incorporated Law Society, and replied to by the Lord Mayor of York.

Mr. Sheriff Woodman proposed the toast of the Association, and Sir James Woodhouse, M.P., the vice-president, in responding, made one or two interesting observations. He said that the question of municipal extravagance, which was constantly before the members of the Association, was much misunderstood by the general public. Lord Avebury, for instance, had been urging the need for economy. The local authorities, without exception, recognised that need. (Cheers.) But economy did not mean merely low rates. (Hear, hear.) Very often low rates were the worst form of extravagance. A liberal drainage or water policy was one of the best forms of economy, because it prevented an excessive poor-rate. Against the large expenditure of the municipalities there were great assets—(loud applause)—not the least of which was the decline in the death-rate, due to wise administration.

THE ANNUAL MEETING.

The historic Council Chamber of the Guildhall, London, was occupied for a little shorter time this year by the members of the Association assembled at their important yearly meeting. This was not owing to lack of business, but on account of more ready despatch. The great feature of the meeting was, of course, the speech of the president, Sir Albert K. Rollit, M.P., LL.D., whose eloquence at these occasions has never reached so high a range. The speech was that of a statesman who was facing his enemies.

The Right Hon. the Lord Mayor of London (Ald. John Pound) welcomed the Association, the members present being:—

Abingdon, Mayor and Town Clerk; Accrington, Mayor and Borough Treasurer; Ashton-under-Lyne, Councillor Pownall, Councillor Coop, and Town Clerk; Aston Manor, Mayor and Town Clerk; Bacup, Town Clerk; Barrow-in-Furness, Mayor and Town Clerk; Bath, Mayor and Town Clerk; Batley, Mayor and Town Clerk; Battersea, Councillor Rines and Town Clerk; Bedford, Mayor and Town Clerk; Bexhill, Town Clerk; Birkenhead, Mayor and Town Clerk; Birmingham, Town Clerk; Blackburn, Mayor and Town Clerk; Blackpool, Mayor and Town Clerk; Bolton, Deputy Mayor and Assistant Solicitor; Bootle, Mayor and Town Clerk; Bournemouth, Mayor and Town Clerk; Bradford, Mayor, Alderman Godwin, Alderman Wade, and Town Clerk; Bridgnorth, Town Clerk; Bridgwater, Mayor and Medical Officer of Health; Brighouse, Town Clerk; Bristol, Alderman Pearson and Town Clerk; Bromley, Town Clerk; Burnley, Mayor and Town Clerk; Burslem, Town Clerk; Bury, Town Clerk; Canterbury, Councillor Russell and Town Clerk; Cardiff, Mayor and Town Clerk; Carlisle, Deputy Town Clerk; Chatham, Mayor and Town Clerk; Cheltenham, Alderman Norman and Town Clerk; Chester, Mayor, Sheriff, and Town Clerk; Chorley, Mayor and Town Clerk; Colne, Mayor and Town Clerk; Congleton, Mayor and Town Clerk; Coventry, Mayor, Deputy Mayor, and Town Clerk; Crewe, Town Clerk; Croydon, Deputy Town Clerk; Darwen, Mayor and Town Clerk; Derby, Alderman Horne and Town Clerk; Devonport, Mayor and Town Clerk; Dewsbury, Ex-Mayor and Town Clerk; Doncaster, Mayor, Alderman Wainwright, and Town Clerk; Dorchester, Town Clerk; Dover, Deputy Mayor and Town Clerk; Dublin, City Treasurer; Dudley, Mayor and Town Clerk; Dukinfield, Mayor and Town Clerk; Dunstable, Town Clerk; Ealing, Assistant Clerk; Eastbourne, Mayor and Town Clerk; East Ham, Councillor Banks-Martin; Eccles, Mayor and Town Clerk; Evesham, Town Clerk; Folkestone, Town Clerk; Gateshead, Mayor, Councillor Thubron, and Town Clerk; Gloucester, Mayor, Deputy Mayor, and Town Clerk; Great Yarmouth, Mayor and Town Clerk; Halifax, Mayor, Alderman Smith, Councillor Clark, and Town Clerk; Hampstead, Alderman Lyell, Councillor Snowdon Gard, Councillor Pearsall, and Deputy Town Clerk; Hanley, Alderman Shirley and James Lovatt; Harrogate, Mayor, Councillor Chippendale, and Town Clerk; Hastings, Mayor, Councillor Gray, and Town Clerk; Hertford, Alderman Baker and Councillor Ginn; Heywood, Town Clerk; Holborn, Councillor Moresby-White; Hove, Town Clerk; Huddersfield, Deputy Mayor and Alderman Willans; Hull, Mayor and Town Clerk; Hyde, Mayor and Town Clerk; Ilkeston, Mayor and Town Clerk; Keighley, Mayor and Councillor Smith; Kidderminster, Mayor, Alderman Parry, and Town Clerk; King's Lynn, Mayor, Town Clerk, Mr. J. Atkinson, and Mr. J. K. Pickup; Kingston-on-Thames, Town Clerk; Lancaster, Mayor; Leamington, Mayor and Town Clerk; Leeds, Councillor Brown and Town Clerk; Leicester, Town Clerk; Leigh, Mayor and Town Clerk; Lewes, Councillor Hodden; Lincoln, Alderman Footman; Liverpool, Controller; London, City Solicitor; Longton, Mayor and Town Clerk; Loughborough, Town Clerk; Lowestoft, Town Clerk; Luton, Mayor and Town Clerk; Lynd, Mayor and Town Clerk; Macclesfield, Town Clerk; Maidenhead, Mayor and Town Clerk; Manchester, Alderman Southern; Mansfield, Deputy Mayor and Town Clerk; Middleton, Mayor, Alderman Aspell and Town Clerk; Nelson, Mayor, Mr. Alderman Dyson, and Town Clerk; Newcastle-under-Lyme, Mayor and Town Clerk; Newport (Mon.), Mayor, Alderman Moses, and Town Clerk; Northampton, Mayor, Councillor Manfield, and Town Clerk; Norwich, Mayor, Councillor Stevens and Town Clerk; Nottingham, Councillor Brown-Sim, Councillor Harlow, and Deputy Town Clerk; Oldham, Councillor Lees and Town Clerk; Ossett, Mayor and Town Clerk; Oswestry, Town Clerk; Peterborough, Mayor and Town Clerk; Plymouth, Mayor; Portsmouth, Councillor Bishop; Preston, Mayor and Treasurer; Reading, Alderman Field, Alderman Martin, and Town Clerk; Ripon, Councillor Thirlway and Town Clerk; Rochdale, Mayor and Town Clerk; Rochester, Town Clerk; Rotherham, Mayor and Town Clerk; Rye, Mayor, Deputy Mayor, Councillor Delves, Councillor Hayles, and Town Clerk; Salford, Mayor, Ex-Mayor, Alderman Robinson, and Town Clerk; Salisbury, Councillor Hall; St. Helens, Mayor and Town Clerk; St. Marylebone, Town Clerk; Scarborough, Town Clerk; Sheffield, City Surveyor and Deputy Town Clerk; Shrewsbury, Town Clerk; Southampton, Mayor, Sheriff, and Town Clerk; Southport, Mayor and Town Clerk; South Shields, Mayor and Town Clerk; Stalybridge, Mayor and Town Clerk; Stockport, Mayor and Town Clerk; Stockton-on-Tees, Town Clerk; Stoke-upon-Trent, Mayor and Town Clerk; Sunderland, Town Clerk; Sutton Coldfield, Alderman Burman and Town Clerk;

Swindon, Mayor and Town Clerk; Tamworth, Town Clerk; Taunton, Mayor and Town Clerk; Thornaby-on-Tees, Deputy Mayor, Alderman Crosthwaite, and Town Clerk; Torquay, Mayor and Town Clerk; Tunbridge Wells, Alderman Delves and Borough Accountant; Tynemouth, Mayor and Town Clerk; Wakefield, Town Clerk; Wallingford, Town Clerk; Walsall, Deputy Mayor and Town Clerk; Warrington, Mayor and Town Clerk; Wednesbury, Mayor and Town Clerk; Widnes, Alderman Waring and Town Clerk; Wigan, Mayor and Town Clerk; Winchester, Mayor and Town Clerk; Windsor, Councillor Dyson and Town Clerk; Wisbech, Mayor and Town Clerk; Wolverhampton, Mayor, Alderman Thorne, and Town Clerk; Woolwich, Town Clerk; Workington, Mayor, Alderman Leitch, Alderman Walls, and Councillor Walker; York, The Right Hon. the Lord Mayor, Alderman Sir J. Sykes Rymer, and Town Clerk.

The following members of Parliament were also present:—

Mr. D. H. Coghill (Stoke), Sir Joseph Leigh, Mr. Robert Pierpoint, Sir Francis Powell, Bart., Mr. Robert Purvis, Sir A. K. Rollit, and Sir James Woodhouse.

The Lord Mayor moved that:—

"The best thanks of the Association be given to Sir Albert Rollit, M.P., LL.D., for his valuable assistance and services during the past year, and that he be re-elected president of the Association."

The Mayor of Preston seconded the proposal.

The resolution having been put to the meeting, and carried with acclamation, Sir Albert Rollit expressed his most hearty thanks for his re-election, and to the Lord Mayor for having placed at the disposal of the Association the beautiful chamber.

Sir James Woodhouse, M.P., was re-elected as Vice-President, and also heartily thanked for his services, this action being taken on the proposition of the Mayor of Wolverhampton, seconded by Sir Homewood Crawford. Sir James Woodhouse expressed his deep pleasure.

The report of the secretary (Mr. A. Goring Pritchard) as to the result of the voting for members of the Council for the ensuing year was taken as read.

As regards the county boroughs, they were re-elected, with the following exceptions:—Reading and Hastings took the places of Newcastle-on-Tyne and Brighton. The former corporations were, therefore, elected. There was still, however, one vacancy, as Blackburn and Blackpool had received an equal number of votes.

A show of hands having been taken on this question, the President declared, amid applause, that Blackpool had been elected by an overwhelming majority.

As regards the non-county boroughs, the council was re-elected with the exception that Windsor and Ely were substituted for Dewsbury and Blackpool; Blackpool in the meantime having become a county borough.

The Lord Mayor of York moved that the appointment of the Lord Mayor of London as honorary treasurer of the Association be confirmed. This was seconded by the ex-Mayor of Batley, and carried with acclamation.

Sir Homewood Crawford responded on behalf of the Lord Mayor.

Law Committee.

The re-election of the Municipal Law Committee was then proceeded with. The Town Clerk of Bradford moved, and the Town Clerk of Windsor seconded:—

"That the best thanks of the Association be tendered to the Town Clerks of Birmingham, Leeds, Liverpool, Manchester, Nottingham, Newcastle-upon-Tyne, Plymouth, and Wolverhampton for the valuable services they have rendered to the Association during the past year, and that they be re-appointed as representatives of county boroughs on the Municipal Law Committee for the ensuing year."

The Town Clerk of Batley moved, and the Town Clerk of Harrogate seconded:—

"That the best thanks of the Association be tendered to the Town Clerks of Blackpool, Crewe, Dover, Eastbourne, Longdon, Macclesfield, Nelson, and Southport for the valuable services they have rendered during the past year, and that, with the substitution of the Town Clerk of Scarborough for the Town Clerk of Blackpool, they be re-appointed for the ensuing year."

The seconder of this last resolution added that, while congratulating Blackpool upon having been elected to the council, they were all sorry to lose the services of Blackpool's Town Clerk, Mr. Loftos. He proposed to substitute the name of the Town Clerk of Scarborough for that of the Town Clerk of Blackpool. This was agreed to.

Sir Homewood Crawford proposed that the best thanks of the Association be given to the Town Clerks of Hampstead and Kensington for their past services, that the former be re-appointed, but that the Town Clerk of Woolwich be substituted for the Town Clerk of Kensington owing to the fact that the last-named found it difficult to attend the meetings. This was seconded by the Town Clerk of Eastbourne, and carried. The annual report of the council and statement of accounts, published in extenso in our last issue, were taken as read.

SIR ALBERT'S SPEECH.

In moving the adoption of the annual Report, Sir Albert Rollit, M.P., spoke as follows:—

The Report is most satisfactory; our Association includes 294 cities and boroughs, the highest number on record; and we have a large balance of assets over liabilities.

Municipally, the year and session have been dull. There is also little to advocate, and less to answer, and with most municipal problems I have dealt previously, and shall not repeat myself. This dulness does not, however, mean that there is less interest in the work of the municipalities; it is rather a sign of your devotion to duty in your own localities. On the other hand, there have been some few spasmodic attacks on municipalism, the chief features of which have been ignorance of your work, prejudice against it, and reiteration, apparently in the belief that repetition strengthens an argument, or in the hope that if a wrong or silly thing be only said often enough, it may impose on the uninformed. (Laughter.) But, we have to meet a new form of assault; not so much, now against so-called municipal trading, as a combination to counter-mine corporations financially. The perpetual cry is "Debt, debt, debt," sometimes called "indebtedness" for a change. (Laughter.) And this, without a word of the more than counter-balancing assets, writ so large on the obverse of the municipal shield, to avoid seeing which the critics put their telescopes to their blind eyes. (Laughter.) Their preaching is in the poetry of Polonius: "Neither a borrower nor a lender be"; and if their one-sided charges were made against a private individual, they would be libels or slander, or, if they led him to look on only one side of his books, they would drive him into bankruptcy or lunacy, or both. (Laughter.)

Dishonesty Disproved.

Their charges are not specific. They suggest dishonesty, yet, when such a case is tried, as in the recent instance of a Maidenhead corporator, it is disproved; while the official defalcations at Holborn occurred under a Government audit, which is vaunted as a preventive. (Laughter.) For ourselves, we have always denounced, and denounce, jobbery as robbery, and the jobber as a robber. (Cheers.)

It pleases even Sir Robert Giffen to write in *The Contemporary Review* that "the Local Authorities are frequently bad managers, *even* when they are not corrupt; they spend money on what is not really wanted; they spend more than they ought on what happens to be—is not that a delightfully casual expression?—(laughter)—necessary; they incur liabilities and burden the future with a light heart. Expenditure is pleasant to those who have a little brief authority, and the increase of the number of urban authorities increases the number of those who may enjoy the pleasure!" (Laughter.)

Sir Robert Giffen is a superior person, a person superior apparently to the need of proof, though I doubt whether he has ever had the personal and practical knowledge of corporate life to enable him to form a just, instead of a most unjust, judgment. Next, there is the allegation that there is not a profit on our reproductive works. But, be it remembered, profit is not our primary object—rather service to the community; and, in this respect, a just adjustment is generally made as between the ratepayers and the consumers. (Hear, hear.)

Provision for Posterity.

That there is such a profit has been demonstrated here and elsewhere, and has been deduced from official Parliamentary returns and accounts; at first, of course, as in the case of electric light, power, and traction, there may be losses, but when established, after a fair trial, the return is general. Then they pile up against us sinking, reserve, renewal, depreciation, obsolescence, antiquation, &c., funds. (Laughter.) In truth, too generous a provision is generally made for posterity, which, instead of being cruelly overloaded like a pack horse, is gently treated, and carries its load largely for posterity. As Sir Boyle Roche said, posterity cannot be our benefactor; neither is it a sacred abstraction to which we are bound to offer sacrifice; what may, and ought to be said, is that posterity will be our judge, and we had best, therefore, do it justice. (Hear, hear.) All the while critics ignore reduced death rates, epidemics, the gradual extirpation of zymotic disease—the diseases of dirt—by sanitation, and the fact that these things are emphasised by such costly exceptions as those at Maidstone or Lincoln, owing to contaminated water, the proper penalty of which is that the people of leisure and pleasure will not even go to their races. (Laughter.) The critics also forget that both remunerative and directly unproductive works are imposed on the municipalities by Parliament, in housing, education, and the like; just as they ignore the fact that, indirectly, municipal work and outlay have secured for the people health and strength, and so wealth for the community. (Cheers.) And all this time the means of proof and prevention, if the charges be true, are at hand in the report of the Joint Parliamentary Committee, as to the audit of corporate accounts. Yet, the critics make no effort, no motion, nor even ask a question in Parliament, to induce the Government to act on that report, as I have done more than once.

Attitude of the Government.

The Government itself has shilly-shallied with the subject; but the interim report was made long ago, recommending a uniform corporation account, a practical professional audit, reports on each separate branch of the accounts, to both the corporation and the Local Government Board, and also upon the adequacy of sinking and reserve funds, guaranteed by the certificate of an auditor irremovable by the corporation. For the corporations, I accepted the committee, and also its report; yet nothing is done, and for our part we have no fear of the fiercest light, nor of any practical expert examination or test of your accounts. Indeed, many large boroughs have already obtained by private statute such professional auditors. Where we do differ from the Local Government Board, and from such opponents as my friend Mr. Faber, M.P., is that we will not have the sham of a Government auditor, as at Holborn, not an accountant, but generally a barrister, and an official declared by the Joint Committee not to have the necessary qualifications, a judgment confirmed by the metropolitan corporations, which have experience of them.

A Dead Letter.

So that report remains a dead letter; but it is not our wish or fault. (Hear, hear.) As samples of criticism, I take my noble friend, Lord Avebury, the eminent banker and scientist, who said a day or two ago that the municipalities were "running head over heels into debt." But Lord Avebury is, now, rather reactionary, and, really, I should not be surprised if he even preferred a primitive water-supply by Jack and Jill, running head over heels to bring their pail of water, instead of modern municipal trading, so called, by waterworks. (Laughter.) But we have got rid, at a price, of course, of

such a Jack and Jill system of supply by the gill. (Laughter.) Lord Avebury "much doubted whether the expenditure on remunerative undertakings showed any real profit." Well, this is a truism; for, if not, they would not, of course, be very remunerative. (Laughter.) But Lord Avebury is a scientist, and surely he should have remembered the canon, as old as Aristotle, that in science we should first ask whether a thing is, before we ask why it is. Lord Avebury might, at least, have resolved his "philosophic doubt," instead of making a sweeping suggestion, without a word of proof. The suggestion, evidently, is that ostensible profits, which are thus admitted by inference, are not true, but delusive ones, and, in respect of one aspect of this point, I will quote an expression of opinion by Mr. Harwood Banner, M.P., President of the Institute of Chartered Accountants:—"The strength of municipal credit lies in the compulsory sinking fund, a model method of depreciation, which is an enormous weapon of safety, providing slowly and surely for the repayment or reduction of liabilities." Next, there is my friend, Mr. Beckett Faber, M.P., the banker, who gave notice for Tuesday last "to call attention to municipal extravagance, and to move that the accounts of all municipalities shall be audited once a year by —a Government auditor." (Laughter.)

A Queer Remedy.

This is, indeed, a queer remedy; it is doing Diogenes with a dark lantern. Then follow words against overdrafts and restrictions on borrowing. The suggested remedy of the Government auditor shows Mr. Faber's dissatisfaction with the report of the Committee in favour of a real audit, and such a remedy may be dismissed. (Hear, hear.) Again, Mr. Felix Schuster, when presiding at the annual meeting of the Union and Smith's Bank, said: "A good deal of money has been diverted from the banks all over the country into channels of municipal enterprise"; while Mr. F. W. Buxton, also a banker, this week "suggested it should be made difficult for municipalities to borrow for all kinds of enterprises," including, I assume, waterworks, in place of Jack and Jill. (Laughter.) All which confirms the view expressed in the Stock Exchange Official Intelligence that there is "a certain amount of alarm in banking circles that the difficulties of the financial situation of corporations are increased to some extent, as a result of the view held in certain circles that it is undesirable to assist in adding to the already enormous burden of the local debt." In other words, bankers love liquid assets better than permanent works, and hence there is a combination to undermine the corporations financially, if possible—which it isn't. (Cheers.) In addition, certain insurance companies, which have hitherto lent largely to the corporations, will no longer do so, because some municipalities have dared to act economically, by the partial mutual insurance of each other's property; while the Local Loans Fund Commissioners have penalised the longer loans by a higher rate of interest, and the Local Government Board has shortened more than ever the terms for the repayment of loans for educational and other purposes.

Injustice to Present Generations.

Now, this question of the length of the term for the repayment of loans has become a most acute and urgent one, and the united power of the municipalities may have to be brought into action to redress an injustice to present generations, to adjust the burden of public improvements fairly between ourselves and posterity, and to remove an impediment to the execution of the most necessary public works, having for their object the health and welfare of the community to-day and for generations to come. There was, after all, a rough truth in the bull of Sir Boyle Roche, M.P., "What has posterity done for us that we should do so much for posterity"; and, while posterity is not, as I have said, a pack-horse to be unduly overloaded, neither is it a sacred abstraction which is entitled to inherit unexhausted improvements without bearing a just proportion of their cost. Posterity is, in truth, protected by the sinking funds, and has no legacy of loans but of good works. In truth, this matter demands statesmanship of the highest order, and you will not be satisfied to allow injustice to be made a lever with which to compel us to do those things which ought not to be done, or to leave undone those things which ought to be done, in the real interest of the community, both present and to come. Yet this is so now, for Parliament compels with one hand, and refuses the necessary means with the other. (Hear, hear.)

Loan Period.

The late President of the Local Government Board has refused to receive a deputation in regard to this subject, but more particularly with reference to loans under the Education Acts. The subject is, however, of extreme importance in respect of waterworks and other works of sanitation. Two cases have recently occurred illustrating the hardship upon local authorities. In one case, the town was in Parliament a few years back for a Bill to construct waterworks, and was allowed sixty years for the construction of the works. Owing to many difficulties, the corporation had to apply to the Local Government Board for a further loan of £100,000. For this, the Board would only sanction thirty years, although for exactly the same works as those for which Parliament had given sixty years. The town in question came to Parliament this Session to extend the period. The application was strongly resisted by the Local Government Board, and the Committee not only declined to interfere, but, in authorising a further loan to complete the same works, again fixed thirty years for repayment.

In another case, two years ago, the Local Government Board authorised the construction of a reservoir, a permanent work, costing about £150,000. The period for the repayment of this loan was also limited to thirty years.

In both these cases, the works are of a *permanent* character, and will probably last several hundreds of years, and will include the purchase of land, with an acre of which a man cannot run away, be he ever so feloniously disposed. Works of this character are not like tramways, where the wear and tear of the lines are great, and the traction power subject to constant alteration and improvement. In those cases, thirty years is not an unreasonable period for the repayment of loans; but where you have permanent works, upon which the health of the community depends, it is unreasonable to place an undue burden upon the existing ratepayers.

Moreover, Committees on private Bills are now, at the instance of the Local Government Board, greatly reducing the periods for the repayment of loans; while it may be pointed out that if the waterworks were authorised by a company no period for the repayment of the capital would be necessary.

Hit Back.

Now, our policy is philosophical and plain. When we get hit—we shall hit back again. (Laughter.) Just and helpful criticism we welcome; of attempts at external control we shall be impatient. After all, we are dealing with local government, guided by local knowledge and judgment, and ultimately determined by those who are alone able to judge from experience, the local electors, who are, and ought to be, supreme. It goes without saying that in their interest the City Councils ought to strain every nerve to aim at rigid economy with efficiency, but I repeat, parsimony is not necessarily economy. Of course, some mistakes have been, must, and will be made, so long as men are fallible, and councils should be regardful of honest criticism, and act with the utmost care and prudence; and they ought also to be aided by the actual presence and work and influence of the critics themselves. Some of the banker critics apparently prefer liquid assets to permanent works. (Laughter.) But we have read, and I have seen and studied, the story of the shame of the cities in the United States, and, judging from that, we must beware that we do not fall, either in State or civic administration, under the power of financial rings and trusts, happily hitherto unknown in this country of ours, or let them become our masters, or control, or interrupt, or restrict, the prudent and prosperous administration and development of our cities and towns. (Loud cheers.) This administration they compare with that of the State; we do not fear the comparison, or rather the contrast. (Hear, hear). *Pace*, Chancellors of the Exchequer—Mr. Austen Chamberlain almost suggested compulsory restriction of civic works in his last Budget speech —and Sir Robert Giffen, an old and, of course, most respected, Government Civil servant, *you* do not vote millions a minute by the closure and without a word, from the want of business methods; your estimates have not to be amended by vast supplementary votes, with differences at times of hundreds per cent.; you do not make daily changes in an army and its clothes; you do not Belleville-boiler fleets, or repair ships before discarding them wholesale; you do not buy your jam by Troy weight; you do not lose long teams of mules in the darkness of space; and I don't think you would accept underwriting of many millions without any writing at all, or give an absolute guarantee of thirty-five millions sterling —at the highest at which it was put by the Colonial Secretary in the House of Commons—in exchange for "an excellent chance" of getting either ten or thirty millions, not legally recoverable, but which ought long ago to have been paid in aid of the cost of the war and the British taxpayer, and which would have been available for public works. (Loud cheers.)

The Municipal Strength.

Happily, undue restriction of necessary works of public utility will be difficult by financial weapons. The strength of the municipalities is that they can themselves offer the best securities, and are able to largely help themselves financially. (Hear, hear.) True, boroughs differ, but there is almost universally an available surplus of assets and the reserve of borough property and the rates. If, therefore, the financial policy suggested should be unduly used against them; if the gold and silver dealers, as at Ephesus, should be too much influenced by fear of their craft being in danger or of the hope of their gains disappearing, so to-day a brief speech of a town clerk might possibly appease these people by pointing out that their towns must rely even more on their own and other resources. (Laughter.) Already, indeed, one effect has been that large loans are being made direct to corporations from private sources; the security is as good as can be wished, and I have personally shown my faith in it; the interest is comparatively attractive; there is ample statutory and other authority both to borrow and to lend; and borough mortgages, etc., are not given by people who have ever repudiated or of whom it can be said, as of many, that it is not their principle to pay their interest or their interest to pay their principal. (Laughter.)

Small Loans.

There is, moreover, a growing practice—each of these plans having long been resorted to by the long-headed burghers of the Northern counties, and now being adopted by the largest, the smaller, and the Metropolitan boroughs, such as my own of Islington—on the part of municipalities to take up small loans, say of under £100 each. For these, bonds, mortgages, debentures, or deposit notes are given; the notice of recall varies, but is generally six months, and the interest is from 3 to 3½ per cent., and paid by warrants, cheques, or even across the counter. The present results of this municipal finance are variously viewed, having regard to the small cost, work, and trouble; and, in my view, a newer and better system than this municipal banking is offered by my Savings Bank Act, 1904. Here there is an addi-

tional specific statutory authority both for boroughs to borrow and for the savings banks to lend, and the machinery is provided for the purpose. Having been chairman of the Statutory Inspection Committee of Savings Banks since the Act of 1891, I have learned, especially as a Mayor of a large provincial city, how frequent and how close is the connection between the corporations and the savings bank, the mayor often being chairman of its hon. trustees and managers, who are themselves local public men, giving the best advice to both the State and the locality. Therefore, in the Parliamentary Committee on Savings Banks of 1903, I strongly urged the repeal of the provision in the Act of 1891 limiting the number of special Investment Departments of the savings banks to such as then existed, and also that they should be given wider powers of investment on the security of municipal mortgages and rates, etc. I should explain that special investment departments are parts of the savings banks which facilitate continuity in saving by permitting deposits beyond the statutory limits in the ordinary departments of the banks; and, in this respect, in November, 1904, the fourteen special investment departments saved by the Act of 1891 contained upwards of £5,000,000, contributed by nearly 40,000 depositors. Now, the Act of 1904 has added to existing departments a similar privilege on the part of the largest savings banks, viz., those containing £200,000 deposits, and opening daily, and in these deposits may now be made up to £500 by any one individual depositor.

Keeping the "Sawbath."

Moreover, the limited powers of investment of the special departments are, by the same Act, extended from municipal stocks, which were objectionable as securities fluctuating in value, to what Scotland had already obtained by a previous Act; Scotchmen, of course, being always in the van in saving. (Laughter.) Only the other day, in the Parliamentary Foreign Ships Committee, when it was proposed to give powers of seizure in English ports when foreign ships were likely to leave without discharging all their obligations, it was discovered that Scotland already had this power, thus verifying the old adage that a Scotchman keeps the Sawbath and anything else he can lay his hands upon. (Laughter.) So, at last, after a long struggle, it is enacted that the special investment departments of the savings banks may make loans, *inter alia*, on security of any local rate levied under the authority of any Act of Parliament by any local authority authorised to borrow money on that security, and this power has been at once followed up by the sanction of several such new investment departments by the National Debt Commissioners, on the recommendation of the Savings Banks Inspection Committee, and many other banks are contemplating obtaining the same privilege. Thus, savings banks, penny savings banks, friendly and benefit societies, and the like will become conduit-pipes between the savers and the corporations, and automatic machines for collecting money and furnishing loans without trouble and cost to the corporations, to which this will be at least materially helpful, in combination with their larger municipal stocks. (Hear, hear.) Thus, too, we shall have local savings for local loans and for local works, such as provision for the housing of the working classes through the savings of the working classes themselves, for municipal education, and so on; and, by this means, the hindrances to limited terms for the repayment of loans for such purposes, which have an undue burden upon existing ratepayers, may be redressed, as may also the objectionable departmental proposal that grants for education shall be paid yearly instead of quarterly, which will be another source of financial loss to corporations. (Hear, hear.)

An Outlet.

By such means, also, the accumulated wealth of the democracy in saving institutions will have an outlet both for investment and for useful application, and I think such a system will be found preferable both to municipal savings banks and to those ordinary mercantile banks which, as in the United States and Canada, are opening savings bank departments, with pass-books and deposits as low as 1s., and which, I agree with Mr. Schuster, should be placed under the safeguards and regulations relating to the ordinary savings banks. (Hear, hear.) Incidentally, too, an advantage to local government itself will arise from the system I have outlined. Local loans for local works means that individual ratepayers, lending to themselves as a community, will have a greater personal interest in local government, upon which such a system will react favourably; in addition to which, if there really be any need for it, our critics will be assured of further checks against extravagance and undue borrowing and spending, through such local interest and the exercise of local judgment upon the values and limits of local securities. (Hear, hear.) Any undue indebtedness will thus be brought home to the minds of the ratepayers—a great security, for thus a margin of safety will be assured; economy and efficiency will be promoted, and the ratepayers themselves will be brought more into the field of practical municipal politics, and become still more arbiters of their own interests as local men and members of the local community. (Cheers.)

Municipal Education.

Sir Albert Rollit then proceeded to deal with the question of municipal education. He said:—A representative committee has been formed in the Association to consider and deal with points arising in the administration of the Education Acts, and the work of this committee, composed of representatives of county, non-county, and metropolitan boroughs, has been very-satisfactory.

Experience confirms the principle of action of the Association, in supporting the Education Bills, that there should be but one education authority, and that authority the municipality.

Unquestionably, two years' experience and zealous work have resulted in material educational progress. In English city and town councils the Act has, in general, been peaceably received and loyally administered, and, with its admitted difficulties and limitations, and need of some amendment, much good has already been accomplished.

As in previous years, I have taken some special pains to ascertain the present position of the solution of the educational problems in our municipalities, and the results of this inquiry I once more place before our annual meeting.

Regular Education Work.

I have satisfied myself by careful inquiry that the greater number of municipalities are now settling down into their regular work under the Education Acts; that the first period of stress is practically over, and that they are, so to speak, getting into their stride excellently.

So far as elementary education is concerned, they find the bulk of the work, I believe, very great, and one of the problems under consideration is the difficult point of how far administrative and executive work can be delegated to officials without undesirable consequences. It is probable that the education authority will gradually have to trust its education officers more and more, certainly more than school boards usually did; and such officers must be much more carefully chosen than hitherto; that is to say, they must be men of high qualifications.

The main municipal difficulty in elementary education is probably that of the scales of salary for teachers, and the second, the proper arrangements for pupil teachers; both vitally important matters, for as is the master or mistress, so is the school, and, to make our education great, we must make our educators great.

This latter consideration raises inevitably and at once the subject of secondary schools. Many are complaining of the great difficulties thrown on municipalities through the inadequate supply of secondary schools for these purposes. We must not, however, deplore that this question is now raised, but rather be glad that a practical difficulty about pupil teachers, which cannot possibly be avoided, is now *forcing* attention to secondary school problems in a way which may at last bring about a proper provision of secondary instruction.

Secondary Schools—a Suggestion.

Many of the great municipalities have been taking the very wise step of having a survey made of the existing educational provision in their areas, especially in respect of the secondary schools. Mr. Sadler has been employed in this way, as an expert, by many authorities, and with excellent results. Other boroughs are using their own officers, or others, for the same purpose. In this way authorities are at last becoming accustomed to regard public education as a whole, instead of, as hitherto was for the most part the case, thinking of elementary education only, with sometimes more or less technical instruction.

One of the problems which, I am told, is acute in some municipalities, is the provision of a, so to speak, lower type of secondary school, which shall charge a very small fee, *or even no fee*, and cater for a somewhat different social class from that which attends the ordinary secondary school. This is an important National problem, which was partially met, but only in a tentative and incomplete way, by the higher-grade schools, established by the larger board schools, and what is now needed is that municipalities should develop these schools upon broader lines. For, it is very important to avoid such an organisation of higher and lower secondary schools as would tend to segregate the boys and girls of the wage-earning classes into secondary schools of a lower type; for such boys and girls ought to have the possibility of ready access to the best secondary schools, as much as to those of a lower grade. This important point must not be overlooked in the present controversy as to the future of the so-called "higher-grade" schools, in which I was much and sympathetically interested, and an excellent example of which I opened for the School Board of Hull, of which I was once a member and a chairman.

I come now, naturally, to the question of Scholarships, which is also greatly, and rightly, exercising the minds of many large municipalities. (Hear, hear.) They are beginning to complain greatly of the announcement of the Board of Education, that Exchequer grants in aid of such scholarships will be withdrawn After next year. But I am glad to find, upon inquiry, that this withdrawal of grants is not so bad as it looks; for I have verified it that the Exchequer money will not be withdrawn from the support of public secondary education, but will be furnished to local authorities in a different way, probably, in the form of grants in respect of efficient schools. The provision of scholarships must almost necessarily be mainly a local question, and one to be worked out carefully with local knowledge. (Hear, hear.) And, if the State helps local authorities more generously than hitherto in the maintenance of secondary schools, it will leave the localities so much the less burden in that respect, and, therefore, so much the freer to spend local moneys in scholarships.

Training of Teachers.

The other acute question is the provision for what is called the training-of-teachers, but which I would more properly describe as providing a good education beyond 14 or 15 years of age for young persons of both sexes who will hereafter become teachers, *i.e.*, a continuance, beyond the ordinary secondary-school age, of the general education of such young persons. Put in this way, it will be seen that mischief may be brought about by what some educationists are urging, viz., that the Central Authority should provide all this portion of National education.

In fact, this work is essentially part of the ordinary educational provision of an area, or of a group of contiguous areas. For the State or the Board of Education to take it over would necessarily involve the extrusion of the local authorities from any

share in its management, and, personally, I think that the municipalities ought not for a moment to let themselves be excluded from this important field. What is absolutely necessary is, that the State should pay larger subsidies towards such education, *i.e.*, to assist the local authorities in providing it. (Hear, hear.) What is also needed is some agreement for an exchange in the nature of a "clearing house," by which local authorities may agree not to deprive one another of teachers whom they have trained, or, at all events, not to do so without adequately refunding the authority which has trained the particular teachers thus transferred.

This is a matter which very much needs the attention of municipalities, in conjunction, of course, with the contiguous county authorities in each case. I would, therefore, suggest that the municipalities should not demand the transference of the whole of this so-called training-of-teachers work to the State Department, since it would, as you will see, bring with it the loss of this important piece of education for the municipalities themselves.

Great Progress.

As to acute questions now prevalent in respect of municipal education, there are, I learn, a few points of controversy here and there, usually in consequence of some supposed difficulty in respect of denominational or anti-denominational bias. Apart from these—which will probably always be with us while persons continue to care about, and therefore to differ about, religion—I may, I think, say that the administration of education, as such, is making great progress, and that the administrative capacity of the municipalities and their collective experience in this field will make everything work out well in course of time.

Touching Technical Education, I must again urge the oft-repeated point, that better provision must be made for good secondary schools, and the municipalities must gradually realise the inadequate provision of technical instruction on the HIGHER PLANE for *students who have completed a good general education*. This, though still talked about, is nothing like sufficiently acted upon. Now that education is in the hands of the municipalities, which are manned so largely by men who have been very successful in trade and industry, and who are still in the daily practice of commerce or industry, this matter ought to be far better dealt with, if we are to conserve the commercial pre-eminence of our country; and it will be indispensable also to preserve special schools, such as the Nautical School of the Trinity House, at Hull, and to continue permanently the grants hitherto, and still, made to them by the Board of Education; for the proposal to discontinue these, on academic considerations, against which I have protested, is quite inadmissible. (Cheers.)

A Valuation Bill.

Proceeding to discuss the subject of the last Valuation Bill, and the Bill promised, by the King's Speech, to be proposed this Session, Sir Albert Rollit continued:—A proper system of Valuation and assessment is one of the pivots of any sound system of local government, and the country is much indebted to the Royal Commission for its thorough examination of the subject, and to the Town Clerk of Birmingham and others for their contributions towards the solution of this pressing and complex problem in local administration. The Bill of last Session had some defects; but, in its main principles, it met with the general support of our Association, though unacceptable to many in London and in the rural districts.

A Bill on the subject of valuation will, no doubt, be introduced again. A leading principle of last year's measure was the extension to the rest of England of many of the provisions which govern valuation in the metropolis. To carry out this principle, considerable adaptation was, of course, necessary. The principle itself did not arouse very serious opposition; but the proposed adaptation drew from boards of guardians—principally from rural boards—rather vigorous protests. These protests were chiefly based upon the fact that the county was to take the place of the union as the valuation area. It was argued (1) that the county councils had already too much work to do, and (2) that the county area was in most cases too large for the convenience of ratepayers desiring to appear before the valuation authority, and that the division of that area into valuation districts of above 50,000 inhabitants would not remove this inconvenience in the case of sparsely-populated districts.

Prophesy.

It is not, of course, possible for me to say what the provisions of this year's Bill will be, but, if prophecy is ever safe, it appears to me safe to prophesy that the Government will take steps to avoid the two rocks which I have mentioned as having stood in the way, and threatened the fate of their Bill of last year. The autonomy of county boroughs will surely be as carefully guarded as in the Bill of last Session; if not we must ask, and know, the reason why, but any change of attitude on this point is highly improbable. On the other hand, differences of opinion created by the Bill of last session may possibly lead, it is suggested, to the substitution of the union for the county as the area of valuation, in deference to the argument that the county councils are overburdened with work, and to other considerations. If this supposition be well founded, the new measure would take the line of less resistance, inasmuch as it would not involve so wide a departure from the system to which the country is accustomed as in last year's proposals; since that greater uniformity of valuation which we all desire would be attained by strengthening the existing Assessment Committees on the lines suggested in Sir T. Elliott's report, instead of following so closely the majority report of the Royal Commission. The subject is, however, though of vital importance in local administration, practically so complex and also so controversial, especially in the non-county boroughs, the interests of which we have protected, and must protect, so far as we possibly and properly can, and in the rural districts, that we can only hope it may be solved during the present Session in Parliament; and, if so, as I trust it may be, it will be a practical achievement on the part of the Government and the Local Government Board, which has certainly given both thought and effort to that important object. (Cheers.)

Points of Wisdom.

There are other subjects of municipal interest upon which I should like to have said a passing word, such as wider trustees' investments; taxation of land values; the extension of the municipal franchise to mercantile and trading bodies; street betting; the supply of electricity, in London and elsewhere, for light, power, and traction, as to which I think there ought to be a Royal Commission; railway companies' motors and trams; police pensions; the rating of Government property, upon which we may now hope for a Select Committee; the compulsory, and less costly, purchase of lands, for public improvements; Private Bill Procedure for Ireland and Wales, as for Scotland, and an extension of the Provisional Order system for England; and the unemployed, &c. But for these there is no time now, and I can only refer to them, and leave them for future observation. And now let me conclude by saying that there is much duty to be done in public life, and you have done, and will do your duty to the best of your ability, which—and I speak with the observation and experience of one who has served every municipal office, and has, as President of this Association, met the personnel of the municipalities every month now for nearly twenty years—which ability, I say, is much greater than your critics allege, and far greater municipally than they possess. This voluntary service is what England expects, and has a right to expect, from her citizens, no less in peace, than in war, though such performance of public duty does not come from every man, and, perhaps, least from some of your critics.

"God Made the Country ——"

But, even from them, you should never refuse to learn the little they may teach, even if it be only the lesson said to have been given by the humble animals who first taught the value of pruning vines by gnawing them by the wayside. Above all, do not be deterred by them from public duty. Let them pray on, as no doubt they do nightly, that you "may rest from your labours, and that your works may follow you." (Laughter.) Still, pursue your useful course with prudence and judgment, consoling yourselves with a Latin inscription I once read over the Town Hall of Zittau, in Saxony, "To do good, and to be spitefully entreated, is kingly." (Laughter.) You will have much regal recreation, but there is also still much to do for your cities and towns. Never forget that God made the country, and man made the towns, and you can still do something in the direction of making your cities more like garden-cities, and in preventing the surrounding country being too much urbanised, as is a present danger. Let there be *rus in urbe*, not too much *urbs in rure*. In this, as in many other respects, much may be learnt from what is going on municipally in Germany, where city and country life are being much more identified, and where the conditions of health and strength are being largely extended by greater provision of the prime necessities of life. Beyond all, let your chivalry and local patriotism manifest themselves on the peaceful battlefields of life, in promoting higher, nobler, ideals and realities of life in our towns, and in inducing the most honest, capable, and unselfish of local public men to live more for that public good, which is the supreme law, and for that widened and widening objective of modern political economy, which consists not merely in wealth, but in the welfare of mankind. (Loud cheers.)

Sir Albert Rollit, who had spoken for upwards of an hour, then formally moved the adoption of the report, amid renewed cheers.

Sir Francis Powell, M.P., seconded the adoption of the report, which was carried.

Police Pensions.

The Town Clerk of Hastings, in the unavoidable absence of the Town Clerk of Brighton, moved:—"To call attention to the large and increasing sums payable in police pensions, with a view to the Government being asked to increase the grants from Imperial funds towards the pension funds; and to move a resolution referring the matter to the council, and with instructions to take such action in the matter as they may deem expedient." He said this matter of police pensions had been considered by the Corporation of Hastings, and had been for some time under the consideration of the Institute of Municipal Treasurers and Accountants. The grants made under the provisions of the Local Taxation and Excise Act, 1890, towards the cost of maintenance of these funds, immediately after the passing of the Police Act, 1890, were, in most cases, upwards of 60 per cent. of the total expenditure. In consequence of the great increase in the number of pensions chargeable to the funds throughout the country on the one hand, and the stationary character of the total grant, namely £150,000 per annum, on the other, the percentage showed a reduction at 31st March, 1902, of about 30 per cent. to 32 per cent. on an average; and since that date this proportion had been still further reduced. Several municipalities had found this a hardship. His Corporation had found itself in this difficulty, that whilst claims upon the local funds were increasing almost by leaps and bounds, the grant from the fixed remained the same, and there seemed to be no means of getting this unsatisfactory state of things altered, except by an appeal to Government. In the county borough of Lancaster in 1892, the payment made out of pension fund was £19,367, the total grant for the year being £12,638, the percentage of

last-mentioned sum on total payment out of fund being 65.3 in 1903, while the payment had gone up to £29,935, the grant had gone down to £9,718, the percentage being 32.5. In Liverpool the respective figures for 1892 were £29,935, £9,718—69.7; and in 1903, £31,024, £9,661—31.1. For Brighton they were in 1892, £1,550, £1,011—65.2; in 1903, £4,547, £1,313—28.9; and in 1904, £4,796, £1,330—27.9; while for his own town of Hastings they were in 1892, £451, £326—72.2; in 1903, £841, £385—45.7; and in 1904, £916, £391—42.6. He did not think it necessary for him to go into the reason of this Imperial pension fund being fixed at £150,000, nor into the reasons why the amounts of police pensions are constantly on the increase.

The Borough Treasurer of Accrington seconded the resolution. As secretary of the Institute of Municipal Treasurers and Accountants, he said he could assure his hearers that the matter of police pensions was receiving a large amount of attention from his society, and also that it was causing a feeling of uneasiness in the county boroughs. The importanee of the subject might be judged from the fact that in some boroughs they had actually to levy a rate for police pensions. In the city of Manchester the rate was ½d. in the £; in the city of Liverpool it was ¾d. in the £. There were three chief reasons for this condition of things. The first was that the grants from Imperial resources was a fixed quantity. They had no more than £3,000,000 for police pensions, half of which went to the police of the metropolis. Secondly, the time had arrived when the entire question of Imperial pensions should be revised. The police pension grant was only a minor part of a great subject. Under the Act of 1888, a certain sum was granted, and notwithstanding the enormous growth of the police force, the grant remained precisely what it was. So acute had the question become, that in some instances the sum set apart for clothing was now inadequate. Thirdly, the retirement at a very early age of members of the police force. They were having a great number of relatively young men, even so young as 46, many of whom forthwith competed in the labour market with those who were seeking employment. In Scotland they did those things better; the lowest age at which an officer could retire was fixed at 55.

A Rider.

The Town Clerk of Rochdale said he did not wish to do more than call attention to the limits which would be imposed upon the council if the resolution were carried. He thought they should delete from the words "with a view to the Government being asked to increase the grants, &c.," as he agreed with the last speaker that the time had arrived when an entire revision of the Imperial pensions should take place.

The Mayor of Plymouth said he heartily sympathised with all the representative from Accrington had said, but he would ask whether the resolution before the council would enable them to consider the whole question? He thought some rider should be added to cover this.

The President thereupon asked the Mayor of Plymouth to formulate a rider.

After a brief speech from the Mayor of Gateshead in further support of the resolution, the Mayor of Plymouth handed his rider to the President. It read:—"That the council be requested to consider the whole subject of Imperial grants."

The Town Clerk of Hull expressed the opinion that the whole question of police pensions generally should be referred to the council, and the rider, being accepted as an amendment, was put and carried.

Elementary Education

The Town Clerk of Wolverhampton then moved:—"That the proposal of the Board of Education to pay the annual grant in one sum in respect of each school at the end of each school year, in lieu of payment of the same grant by quarterly instalments as hitherto, tends to seriously increase the burdens of local taxation, and that the President of the Board of Education be respectfully requested to receive a deputation in regard to the subject at an early date."

He said that since he had given notice of that resolution he had received many inquiries as to whether any indication had been received from the Board of Education in relation to the subject, stating that their decision might be regarded as final. It would be remembered that soon after the passing of the Education Act, a deputation waited upon the President of the Local Government Board, and certain arrangements were made which, to many boroughs, proved very satisfactory. The boroughs were divided into three classes: those that could carry on their work without the quarterly aid already given, those that could partially carry on, and those that could not carry on at all without it. When the quarterly instalment was withdrawn in the first instance, there seemed to be an understanding that this was but a temporary measure, but inquiries made by Mr. Alfred Hickman, the Member for Wolverhampton, had made it clear that the Board of Education regarded the new regulation as final. This was unfortunate, as it unquestionably tended to increase the burdens of local taxation. The quarterly instalments had provided a kind of working balance in many districts, and their withdrawal would mean a new rate. In Wolverhampton, which was already one of the heaviest rated towns in the kingdom, it would probably mean the addition of a ¾d. rate.

The Town Clerk of Leeds seconded this resolution, which was put and agreed to.

The Telephone Purchase.

The Mayor of Newport (Mon.) moved:—"That the attention of the council be drawn to the proposed purchase of the National Telephone Company's undertaking by the Government, with a view to taking all necessary steps to safeguard the interests of municipalities in the matter." He said: It is obviously in the interests of municipalities that we should be protected. I would remind you that the question of way leaves rentals, which the Postmaster-General asknowledges our right to, ought to be considered. There is the matter of inter-communication, which we assume we shall now get. And surely there is a question of obtaining some improvement in the tariffs.

Alderman Southern (Manchester) seconded, and said: It appears to me some much more immediate action than reference to the council is necessary in this case. It seems a somewhat unusual mode of procedure that an agreement of such momentous importance as this between the Postmaster-General and the National Telephone Company should come into operation automatically, if it is not vetoed by Parliament before the 31st August. I do not know how other gentlemen feel, but in Manchester we look with considerable apprehension upon the possibilities of this case. In the city of Glasgow an efficient service has been rendered by the Corporation itself for something little more than half of what we have to pay the National Telephone Company at Manchester. If the 12,000 users of the telephone in Glasgow have to pay what we have to pay, it will be some £27,000 a year more out of their pockets, and it would be a somewhat deplorable thing if that is to become petrified and permanent—this relation between one city and another. It seems to me that we ought to ask for further opportunities for discussion before an agreement of this importance should automatically become operative. The condition of things in Parliament at the present time, we must acknowledge, is somewhat precarious. (Laughter.) Before the 31st August a general election may intervene. (A voice: "Very probably.") If it is a remote possibility, and not very probable, I think we ought not to have an agreement of this importance coming into operation without distinct discussion in Parliament. Of course, it is referred to a Speeial Committee. Our President and our Vice-President are bound to give their best efforts to promote the interest of the company, of which they are directors. But we are representatives of municipalities. We have been asked to promote in our towns and cities municipal telephones, and I think a further opportunity should be allowed before this matter is finally fixed and made permanent; and I would suggest that those who think so should not be content with simply referring the matter to the council, but that they should offer evidence before the Select Committee, to suggest that a longer period be given for discussion—that it should not be operative before it has been discussed in Parliament, and that, therefore, opportunity be afforded for municipalities to follow in the footsteps of Glasgow.

The resolution was adopted.

Trust Investments.

Alderman Smith (Halifax) moved a resolution, urging that in view of the extension of the privileges of trust investment to £192,000,000 of Colonial securities, the Government be asked to introduce into Parliament in the present session a Bill providing for the assimilation of existing powers of investment, and for the extension of trustees' powers to eligible British securities, including mortgages and debentures of municipal eorporations not at present possessing such privileges.

The Town Clerk of Ossett seconded.

The Town Clerk of Blackpool thought that the Association ought to express its obligation to the President and Vice-President for again introducing into the House of Commons the Bill approved by the Association with respeet to trust investments. He thought the President, Vice-President, and Secretary should be desired to make arrangements for any necessary interview with His Majesty's Ministers, and that the several members of the Association be requested to give the Bill their individual support in such manner as they might deem most effective.

It was agreed to add these suggestions of the Town Clerk of Blackpool to Alderman Smith's motion, which was carried.

Marine Store Dealers.

The Mayor of Keighley moved a resolution to the effect that the whole subject of the existing general laws relating to marine store dealers and dealers in old metal should stand referred to the council of the Association, with a view to the amendment of the law on the subject. What was needed, he said, was careful consideration and revision of the laws relating to these dealers, as had already been done in the cases of various boroughs where special legislation had been obtained.

Councillor Smith (Keighley) seconded, and the motion was carried.

Loan Repayments.

At this point the President asked for the consent of the meeting that a motion ought be brought forward which was not on the agenda paper. This was given on a show of hands.

The Town Clerk of Blackpool then moved: "That the practice of the Local Government Board, and in some cases of Parliament, of granting short periods for the repayment of loans for the construction of permanent works, for the supply of water, and for sanitary purposes, and also on permanent buildings for education purposes, imposes an unfair burden upon present ratepayers, particularly as such works are usually to provide for the wants of increasing population, and that the council be instrueted to urge the foregoing upon the Local Government Board and Parliament in sueh manner as they think fit." He said at that hour he would not detain them by a speech, but simply move the resolution.

The Mayor of Rotherham seconded, and the motion was carried.

The Mayor of Hull moved that the best thanks of the Association be given to the Right Hon. the Lord Mayor for his courtesy in welcoming the Association, and to the Corporation, of which he was the head, in placing the council chamber of the Guildhall at the services of the Association for that meeting.

The Town Clerk of Ripon, having seconded, the motion was heartily carried.

A vote of thanks to the President, concluded the proceedings.

NOTES AND ANSWERS.

Eligibility of Co-opted Member of Board of Guardians to Serve on Rural District Council. Paid Election Agent and the Corrupt Practices Act. Right of Parochial Electors to Use of Local Council House Free of Charge. Number of Local Authorities which have Adopted the Housing Acts, and Amount Borrowed Since 1900.

[BY A BARRISTER.]

694.—CO-OPTED GUARDIAN—Is He Eligible for the Rural District Council?

Is a person, who is a "co-opted member of the board of guardians," eligible to be elected to serve on the rural district council? If not, will you kindly state by what Act and section, or sub-section of the Act, he is prohibited; and, if such a person be elected, can he be unseated if an appeal or protest be sent in by one or several of the unelected candidates?

On Saturday last, an election took place here to fill up a vacancy on this rural district council. There were four candidates, one of whom is a "co-opted guardian," or, as some have put it, "already a half-made R.D. councillor." The opinion of several here is that he ought to have resigned his seat as a guardian, to qualify himself for eligibility to run as a candidate for the seat of a R.D. councillor.—"C."

Co-opted guardians are elected by boards of guardians under the provisions of Sec. 20 (7) of the Local Government Act, 1894, from persons qualified to be guardians of the union. Sec. 24 (4) of the same Act provides that any person qualified to be a guardian for a union, comprising a rural district, shall be qualified to be a district councillor for the district. There is nothing, therefore, to prevent a co-opted guardian from seeking election as a councillor of the rural district comprised in the union for which he serves as guardian, or to disqualify him for the office of rural district councillor.

695.—MAY AN ELECTION AGENT VOTE AT DISTRICT COUNCIL ELECTION?

May an election agent who is paid for his services vote at a district council election?—"NEMO."

Sec. 13 of the Municipal Elections (Corrupt and Illegal Practices) Act, 1884, has been applied with certain modifications to the elections of rural district councillors, by Sec. 48 (3) of the Local Government Act, 1894, and the Rural District Councillors Election Order, issued by the Local Government Board in 1898. The effect of these provisions is to prohibit at such elections the employment of a paid election agent, and to limit the candidate's power in respect of the employment of paid services to the appointment of polling agents, clerks, and messengers, under prescribed conditions. Sec. 13 (3) of the Act of 1883, referred to, expressly prohibits a person so employed for payment from voting at the election. Any person who votes, knowing that he is prohibited under this enactment, is guilty of an illegal practice, and is liable on summary conviction to a heavy fine, and to other penalties.

696.—ARE PAROCHIAL ELECTORS ENTITLED TO USE OF PARISH COUNCIL HOUSE TO HELP CANDIDATE FOR DISTRICT COUNCIL?

In this parish, we have a good council house, with suitable rooms for public meetings, which are closed and unused for most of the year. We wish to know whether the parochial electors are entitled to have the use of one of such rooms, after due notice, to further the candidature of a person for the district council. There are no other rooms in the parish that can be used free of charge.—"NEMO."

Under Sec. 4 of the Local Government Act, 1894, the parochial electors of any rural parish are entitled to the use, free of charge, at all reasonable times, and after reasonable notice, of any public room vested in the parish council, or in the chairman of the parish meeting, for the purpose (*inter alia*) of "the candidature of any person for the district council, or the parish council." Any question which may arise under this section as to what is "reasonable or suitable" is to be determined in the case indicated by the Local Government Board. In the present case it seems clear, therefore, that the use of the council house could lawfully be requisitioned, after due notice, for the purpose of furthering the candidature of a person for the district council, provided, of course, that the council house is not then required for other purposes, and its use is demanded for some reasonable time or hour.

697.—HOUSING ACTS—Number of Authorities Which Have Taken Action—Borrowing.

Would you kindly inform me, through the columns of your valuable paper, the number of local authorities which have adopted the Housing Acts, and the amount of money borrowed since the passing of the Act of 1900, as near up to date as possible?—"SKELTON."

About 1,800 local authorities, we understand, have taken action under one part or other of the Housing of the Working Classes Act, 1890. We have not the figures before us as to loans under these Acts since the passing of the Act of 1900. They may be ascertained for any period down to the end of December, 1903, from the reports of the Local Government Board. For the year 1903 the total loans sanctioned in the case of town and urban district councils, under the Housing Acts, amounted to £1,029,226. Much useful, general, and statistical information on this subject will be found in the special article thereon, contained in the "Municipal Year Book" (published for 3s. 6d., at the offices of this Journal).

698.—RATING OF WOODLAND.

Can woodland which is laid out for building, and on which no wood is cut or sold, be charged with rates or taxes?—"H. W. B."

The land, we understand, is unoccupied, and not used for any purpose, but is waiting to be let for building. This being so, it is not liable to any rate or tax.

699.—PAID MEMBER OF FIRE BRIGADE OF U.D.C. DISQUALIFIED FOR ELECTION AS COUNCILLOR.

Our correspondent "Briton" writes further in reference to query No. 683, on the above subject, in last week's issue. We are not printing the query, as the election to which it relates is now over. Apparently the candidate for office as an urban district councillor resigned his post as paid member of the council's fire brigade before the election. Owing to the committee concerned, and the council, not meeting till after the election, this resignation could not be accepted in time. Is the candidate, if elected, disqualified? We doubt whether the mere fact of non-acceptance of his resignation would operate so as to cause the councillor concerned (*i.e.*, assuming he has been elected), to be regarded as continuing to hold a paid office under the council, so as to disqualify him under the Act of 1894. In any case, we should say his best course would be to abstain from acting or voting as a councillor, so as to avoid liability to a penalty, until his resignation has been accepted. Once a candidate has been elected, he may not resign office or refuse to serve without paying the fine prescribed in this connection by bye-law, or, if no such bye-law has been made, a fine not exceeding £20.

700.—DISQUALIFICATIONS ATTACHING TO TOWN COUNCILLORS AS SHAREHOLDERS OR CHAIRMEN OF COMPANIES—Penalties.

The Act of 1882, sec. 12, specifically exempts a member of an incorporated company, also a member of the council, from liability, so far as qualification goes, if he votes on a matter in which he has, as a shareholder, some interest at stake. Sec. 22 provides that no such member shall vote, &c., if directly or indirectly interested. No exceptions are here mentioned. No penalty, so far as I can see, attaches to breach of this regulation. As to members of a co-operative society, or of any other incorporated society (incorporated other than under the Companies Acts), it appears that, on general principles, they, too, should be exempted from liability if, as members of a council, they vote in respect of, say, a contract with the society of which they are members. The general principle referred to is, that an incorporated company or association has a separate existence, quite apart from the members who compose it. It is a separate entity. With this introduction, I beg to submit the following questions:

1. As to Sec. 12 (Municipal Corporation Act, 1882), sub-sec. 2 (e) exempts from disqualification as a councillor a shareholder of a company, registered under the Companies Act, 1862, who may have voted on a matter in which, as a shareholder, he may be interested. Sec. 22 provides that no member of a council shall vote in respect of matters in which he is directly or indirectly interested. Does the exception of Sec. 12, sub-sec. 2 (e) in any way affect Sec. 22 (3)?

2. If not, is there any penalty or breach of the provision of Sec. 22 (3)?

3. Does it make any difference if the interest in the company is that of chairman or director, if such offices are salaried offices?

4. Are members of a co-operative society debarred from voting as councillors on contracts with their society?

5. Would it make any difference if the member of the co-operative society is a member of the co-operative society's committee?—"MERCS."

The exceptions in Sec. 12 of the Municipal Corporations Act of 1882, under which shareholders in limited companies and certain other persons are exempted from the general disqualification for the office of councillor attaching to those interested, directly or indirectly, in a contract with the council, do not affect the generality of the provision contained in Sec. 22 of the same Act. Consequently the shareholder or other person exempt under Sec. 12 from disqualification infringes the law laid down in Sec. 22, by voting on any matter before the council or a committee in which he has, directly or indirectly, any pecuniary interest.

2. No penalty is expressly provided for in cases of the infringement of this rule, as laid down in Sec. 22 (3). It has been suggested, however, that Sec. 41 of the Act may be construed as applicable to such cases. Under that section, any person who acts in a corporate office "after ceasing to be qualified, or after becoming disqualified," shall, for each offence, be liable to a fine not exceeding £50, recoverable by action, and it seems to us that probably this section might be so applied.

3. There does not appear to be any decision on the point, but in our opinion a councillor who happens to be a salaried chairman or director of a limited company which does business with the council is not thereby prevented from claiming the exemption provided for in Sec. 12 (2) (e) of the Act of 1882.

4. Unless the co-operative society has been incorporated by Act of Parliament, or Charter, or under the Companies Acts, as provided in the sub-section referred to, the exemption cannot be claimed, and members thereof will be disqualified for office as councillors when their society is interested in a contract with the council.

5. We do not think this will make any difference.

(Continued on Page 338.)

THE Corporation of Greenock and the Tramway Company have agreed on a revised scale of rates for electricity for the next five years, subject to certain conditions on the eve of settlement. The rates are as follows:—First 500,000 units at 1½d. per unit, next 200,000 units at 1¼d. per unit, then 200,000 units at 1d., and anything further at ·85d. per unit. The revenue from these rates will amount to about £5,000 per annum.

Official Advertisements.

BOROUGH OF SOUTHEND-ON-SEA.

ERECTION OF PUBLIC LIBRARY.

THE Corporation invite Tenders for the ERECTION of a PUBLIC LIBRARY in Victoria Avenue, Southend-on-Sea.

Applications for Bills of Quantities and Form of Tender must be made to the undersigned, accompanied by a deposit of £2 2s. 0d. (which will be returned upon receipt of a bona-fide Tender).

Sealed Tenders, marked "Tender for Public Library," are to be delivered at the Office of the undersigned on or before 5 o'clock p.m. on Thursday, the 27th day of April.

The Corporation will not be bound to accept the lowest or any tender.

By order.
WILLIAM H. SNOW,
Town Clerk.

Town Clerk's Office,
Southend-on-Sea,
28th March, 1905.

BOROUGH OF FOLKESTONE.

SECOND CLERK, BOROUGH ENGINEER AND SURVEYOR'S OFFICE.

THE Corporation of Folkestone are prepared to receive applications for the APPOINTMENT in the Borough Engineer and Surveyor's Office of SECOND CLERK, with knowledge of Shorthand and Typewriting, and with previous Municipal experience.

Salary, £65 per annum.

Applications, in candidates' own handwriting, together with copies of not more than three recent testimonials, endorsed, "Second Clerk," to be addressed to the undersigned, and delivered at the Borough Engineer's Office not later than the 19th April, 1905.

By order.
A. E. NICHOLS, Assoc.M.Inst.C.E.,
Borough Engineer and Surveyor.

Folkestone.
5th April, 1905.

THE CORPORATION OF BLOEMFONTEIN.

APPOINTMENT OF CHIEF AUDITOR.

THE undersigned are authorised to receive from gentlemen not over 40 years of age APPLICATIONS in detail for the above APPOINTMENT.

The candidates must have municipal experience, and be either Chartered Accountants or Members of the Society of Accountants and Auditors (Incorporated).

The duties of the office are to audit continuously the accounts of the various municipal departments, to see that the accounts due to the Council are punctually rendered and collected, to compare the cost of works executed with the estimates, and to make returns, prepare statistics, and generally carry out what may be required on all financial matters.

The officer appointed will be required to devote the whole of his time to the duties of the office, and to enter into an agreement to remain in the service of the Corporation for a period of not less than three years, dating from arrival at Bloemfontein.

The salary to be paid is £600 per annum.

Canvassing, personally or otherwise, will disqualify any candidate.

There is no special form of application. Each candidate is required to state (in addition to his professional status) his age last birthday, to set out the appointments he has held (and these in chronological order), and to forward copies (not originals) of not more than six testimonials of recent date.

The above applications must be deposited at the offices of the undersigned not later than four o'clock p.m. on Friday, 14th April, 1905, where candidates selected from the application papers will be interviewed personally during the week following, reasonable travelling expenses being paid.

DAVIS and SOPER, Agents of the Corporation of Bloemfontein,
No. 54, St. Mary Axe, London, E.C., 3rd April, 1905.

Official Advertisements.

BOROUGH OF EAST HAM EDUCATION COMMITTEE.

TO IRON STAIRCASE BUILDERS AND OTHERS.

TENDERS are invited for an IRON EMERGENCY STAIRCASE at New Beckton School.

Plans can be seen, and specification obtained, at the Office of Mr. R. L. Curtis, 11 and 12, Finsbury Square, E.C.

Each contractor will be required to deposit with his tender a £5 Bank of England note, or crossed cheque of equal value, which will be returned on the signing of the contract by the successful tenderer.

Tenders, on the printed form, must be delivered to me not later than 4 o'clock in the afternoon of Thursday, 11th May, 1905, and should be endorsed, "Tender for Emergency Staircase."

The Committee do not bind themselves to accept the lowest or any tender.

The person whose tender is accepted will be bound by his contract to pay the recognised Trade Union rate of wages and to observe the recognised Trade Union hours of labour for all work done under such contract, subject, in case of non-observance, to being disqualified for future tendering.

H. C. PADGETT,
Secretary.

Education Office,
East Ham, E.,
1st April, 1905.

BOROUGH OF EAST HAM EDUCATION COMMITTEE.

TO SCHOOL FURNISHERS AND OTHERS.

TENDERS are invited for the FURNITURE required for Fourth Avenue School enlargement.

Specification and form of tender may be obtained on application to the undersigned.

Each contractor will be required to deposit with his tender a £5 Bank of England note, or crossed cheque of equal value, which will be returned on the signing of the contract by the successful tenderer.

Tenders, on the printed form, must be delivered to me not later than 4 o'clock in the afternoon of Monday, 17th April, 1905, and should be endorsed, "Tender for School Furniture."

The Committee do not bind themselves to accept the lowest or any tender.

The person whose tender is accepted will be bound by his contract to pay the recognised Trade Union rate of wages, and to observe the recognised Trade Union hours of labour for all work done under such contract, subject, in case of non-observance, to being disqualified for future tendering.

H. C. PADGETT,
Secretary.

Education Office,
East Ham, E.,
1st April, 1905.

SUTTON BRIDGE URBAN DISTRICT COUNCIL.

TENDERS FOR ROAD MATERIAL.

THE Sutton Bridge Urban District Council invite Tenders for the SUPPLY of ROAD MATERIAL as follows:—

XX Granite 1¾in.	390 tons.
X Granite 2¼in.	130 tons.
Slag Tailings	155 tons.
Granite Chips	40 tons.
Peakirk Sand for Asphalt Paths after Tarring	24 tons.
Sea Shingle (by water or rail)	135 tons.
Wansford Stone (by water or rail)	80 yards.
Slag Ballast	80 tons.

Tenders, marked "Tenders for Road Material," to be sent to me, the undersigned, on or before Saturday, the 15th April inst. Samples may be addressed, "The Surveyor, Oddfellows' Hall, Sutton Bridge."

No form of Tender supplied.

LEOPOLD C. HARVEY,
Clerk to the Council.

Holbeach,
30th March, 1905.

Official Advertisements.

THE URBAN DISTRICT COUNCIL OF HOYLAKE AND WEST KIRBY.

ANNUAL CONTRACTS.

THE Council are prepared to receive tenders for the SUPPLY and DELIVERY of the undermentioned for the period ending 31st March, 1906:—

Kerbs, Channels, Setts, Cement Concrete Flags, Macadam, Chippings, Portland Cement, Stoneware Sewer Pipes and Gullies, and Horse Provender.

Specifications and Forms of Tender may be obtained upon written application only to the Engineer and Surveyor to the Council, Town Hall, Hoylake. No duplicates will be supplied.

Sealed Tenders, endorsed "Tender for——," are to be delivered at my office on or before Wednesday, 12th April next.

The Council do not bind themselves to accept the lowest or any tender.

By order.
(Signed) RODERICK WILLIAMS,
Clerk to the Council.

Town Hall,
Hoylake.

PARISH OF BERMONDSEY.

HEAD MASTER'S ASSISTANT CLERK AND STOREKEEPER.

THE Guardians require for their Schools at Shirley, Wickham Road, near Croydon, a HEAD MASTER'S ASSISTANT CLERK and STOREKEEPER. Salary, 10s. per week. Emoluments, rations, lodging, and washing.

Candidates must not be less than 18 nor more than 25 years of age, and single; well educated, of exemplary character and conduct, good and accurate writers, quick at figures, well acquainted with the books and accounts to be kept, and the routine of a master's office, able and willing to render efficient assistance in the Head Master's Office.

Forms of application, containing particulars and conditions, which must be strictly observed, can be obtained on application by letter to the Clerk to the Guardians, accompanied by a stamped and addressed envelope of foolscap size.

Applications to be returned to the Clerk to the Guardians not later than 10 a.m. on Saturday, the 15th day of April, 1905.

Selected candidates will have notice as to the date, time, and place of attendance before the Guardians.

By order.
E. PITTS FENTON,
Clerk.

283, Tooley Street, S.E.,
4th April, 1905.

SITUATIONS WANTED.

YOUNG married man, 30 years, life abstainer and non-smoker, with good business capabilities, is seeking an appointment, under a Municipal Authority, as buyer, storekeeper, inspector, or other such position. Excellent references.—G. J. A. B., 79, Skeffington Road, East Ham, E.

WANTED, a position as Assistant or Storekeeper, by an Army Reservist. Age 35. Life long abstainer. Can be well recommended. Trial not objected to. —Apply, C. C., "Municipal Journal" Office, 12, Salisbury Square, E.C.

WARD & MACONIE,

15, HANOVER STREET, LONDON, W.

Municipal Robe Makers and Court Tailors.

PRICE LIST ON APPLICATION.

SUN FIRE OFFICE
FOUNDED 1710

SUN FIRE OFFICE

HEAD OFFICE:
68, Threadneedle Street, London, E.C.

Branch Offices in London:
60, Charing Cross, S.W
332, Oxford Street, W.
40, Chancery Lane, W.C.
4, Mincing Lane, E.C.

BIRMINGHAM .....10, BENNET'S HILL.
BRISTOL..... CORN STREET.
LEEDS.....SUN BUILDINGS, 15, PARK ROW.
LIVERPOOL.....SUN BUILDINGS, 6, CHAPEL-ST.
MANCHESTER..... 71, KING STREET.
NEWCASTLE..... 19, COLLINGWOOD STREET.
EDINBURGH.. ....40, PRINCES STREET
GLASGOW..... 42, RENFIELD STREET.
DUBLIN .....10, TRINITY STREET.

Funds in Hand, £2,535,800.

Demy 8vo, Cloth Boards, price 5s. net, post free.

RATEABLE MACHINERY

By GEORGE WASTALL, F.S.S., Rating Surveyor, &c.

Invaluable as a work of reference to Rating Authorities, Guardians of the Poor, County and Borough Councils, Railway, Tramway, Electric Lighting, Gas and Water Companies, Solicitors, Surveyors, Auctioneers Manufacturers, and all users of machinery.

London: Philip Allen & Co., 87, Chancery Lane, W.C.

TO MUNICIPAL AUTHORITIES.

First-class Orchestras, Military Bands, and Concert Parties provided *at minimum rates* for every kind of function, or for Season.

J. HERBERT JAY,
10 & 11, Jermyn Street, Piccadilly.
Telephone—6534 Gerrard.

DELICIOUS COFFEE.

RED WHITE & BLUE

For Breakfast & after Dinner.

In making, use LESS QUANTITY, it being so much stronger than ORDINARY COFFEE.

BUILDS UP THE TISSUES.
30 times more nutritious than milk.

PLASMON

*1/- Cookery Book post free for two stamps—
Plasmon, Farringdon-street, London, E.C.*

LIGHTNING CONDUCTORS

Supplied, Erected, & Tested. Chimney Shafts Restored, &c.

J. LEWIS,
5 and 6, Great Winchester Street, London, E.C.
TELEPHONE NO. 3053 CENTRAL.

A FACT FOR ADVERTISERS.

STRIKING SUCCESS

OF THE

ENLARGED SERIES

OF THE

MUNICIPAL JOURNAL.

The GUARANTEED BONA-FIDE SALES of the MUNICIPAL JOURNAL for the first Four Weeks of March, 1905.

EXCEEDED BY

3,888 copies

the sales for the corresponding period in 1904.

An admirable Food of the

EPPS'S

Finest quality and flavour.

COCOA

Nutritious and Economical.

MUNICIPAL JOURNAL
FRIDAY, APRIL 7, 1905.

NOTES AND COMMENTS.

The Government and Telephones.

WHEN is the Select Committee on the Telephones Purchase to be appointed? It looks very much as though the intention is to allow the agreement to come into operation without Parliamentary inquiry of any kind. The last clause of the document provides that if Parliament has not disapproved the arrangement by the end of August it is to become valid automatically. Notice has been given of the appointment of the Select Committee, but that is all. If a real inquiry is to take place, and evidence is to be given by all the parties interested, there is very little time between now and August for a report to be drawn up and submitted to Parliament. The clause providing for the automatic operation of the purchase terms is in any case suspicious; it becomes doubly so in view of the Government's inactivity. The question should be raised in the House of Commons at once, and further loss of valuable time, if possible, prevented. We see that Sir Henry Seymour King has made a curious reply to the resolution passed by the Hull and District Chamber of Trades to the effect that the purchase shall only be effected on terms which will permit of the low rates of the competitive system being maintained. Sir Henry says—

> Of course the agreement with the Telephone Company contains no guarantee that cheaper rates shall be charged. Why should it? It has nothing to do with purchase from the Telephone Company; it is a question between the Government and the country, as to which Parliament will no doubt use the proper pressure through the representatives of the towns in due course. The Government is bound to purchase at the value of the plant on "tramway terms" at the expiration of the licence. No other terms would be possible.

Sir Henry completely misses the point. The undertaking of the National Company is not actually purchased until 1911, and the agreement is framed in such a way that in the meantime unfair competition can be directed against those corporations which have established municipal exchanges. Is the Post Office going to allow these enterprises to be ruined? Cheaper rates may have nothing to do with purchase, but users of the telephone in Glasgow, Hull, Portsmouth, Brighton, and Swansea will hardly regard the agreement with favour if its only effect, so far as they are concerned, is to double their charges.

Local Authorities and the L.G.B.

MR. GERALD BALFOUR talked at the banquet of the Association of Municipal Corporations about the desirability of good relations existing between the municipal bodies and the central department. We hope the right hon. gentleman will be able to foster the cordiality of those relations by accelerating the movements of his officials. At Dartmouth the Council is anxious to proceed with its scheme for the provision of a new market and new municipal buildings. The Board held its inquiry a long time ago, but sanction to the scheme is not yet forthcoming. In reply to a letter, the Department said the "preparation of the order was under consideration," and a disrespectful Council, according to the local paper, expressed itself in "laughter"—

> Mr. Medway said it was the old story over again. These gentlemen were like dormice. They got into a state of utter collapse for a month, then woke up, rubbed their eyes, and were astonished that the 16 gentlemen who did the business of that borough were offended at their inexplicable lethargy and indifference.
>
> These central offices, created to assist and stimulate local enterprise, hampered them on every hand. He wished he could move an insulting resolution.
>
> He would propose, however, that the town clerk write the Board that the Council were exceedingly vexed with the letter received, and that the town was anxiously desirous of having a clean and healthy market constructed, together with proper and commodious municipal buildings, and begged them to give the matter their prompt attention.

The resolution was carried, and the Board is to be again pressed for its consent. Until it is given, the scheme is hung up. Perhaps the change of presidents has had something to do with the delay. Or

maybe, as the weather has lately improved, holidays have commenced in this spirited Government office. Whatever be the cause. the Board cannot complain of the protest of the Dartmouth Council. The nation spends its money freely on its central offices, and it has a right to insist upon the proper performance of the duties.

Women as Councillors.

THE second reading of the Bill which would remove the disqualification of women to sit as councillors or aldermen of county and borough councils was carried in the House of Commons last Friday by a majority of 150 votes. This is a splendid victory, but we are afraid it is merely of the "moral" order. Members of the House of Commons seem terribly fearful lest in course of time women should become qualified to take a part in the deliberations of that honourable assembly. If they did, they could scarcely talk more than the present members talk, and indisputably they could not do less work. The ambitions of the fair sex do not yet aspire to St. Stephen's, but there is plenty of scope for their useful activities on local authorities. Women have already earned their laurels on the boards of guardians, and their oratorical record compares favourably with that of the men. The new duties and responsibilities that have been thrown, and are being thrown on local authorities generally have created a sphere for women's work on those bodies equally as important as that existing with Poor Law authorities. The committees responsible for the conduct of the milk depots, for instance, should have a fair sprinkling of women upon them. So should housing committees and those responsible for the dissemination amongst ignorant mothers of instruction concerning the rearing of children. It is absurd for the Empire which during perhaps the most prosperous period of its existence was governed by Queen Victoria, to refuse the privilege of public service to women.

Labour Members and Officials.

THERE is, perhaps, no more impractical or useless member of local authorities than your raw Socialist or new Labour member. He enters the town council with an overwhelming desire to inaugurate a new social revolution without delay. He has no conception of administration, but has certain fixed, ingrained theories which he wants to put in force. One is, that manual labour should be paid at the high-water mark, and that it is impossible to pay officials too little. It does not follow that the man who has been a success as an agitator makes a good town councillor. He starts off too freely with his strong class prejudice, but after he has had a short experience of public work a change is soon effected, if he is endowed with ordinary perception and common sense. The theory that the good of the community is best regulated by the man who controls great trade enterprises is soon observed by the Labour member who takes any practical interest in municipal work. He recognises that such work can only be of service if it is efficient, and to be efficient it is necessary that the best administrative talent be secured, and if the best talent is to be obtained, the market price must be paid for it. Other members besides Labour members frequently fail to remember this sound business theory. It stands to reason that company rule can only be displaced by municipal ownership if municipalities are administered on a business basis.

A Good Example.

WE are glad to see that a Labour member of considerable experience sets a good example to his comrades. We refer to Councillor Fred Jowett, of Bradford, who, in a recent article in the *Clarion*, referring to the attitude of Labour towards municipal work, said:—

> Unfortunately, there is a disposition to think that it is the duty of all who claim to belong to, or represent, the working class section of the public to vote against every increase to any already large salary. Instead of which there are occasions when it would be wasteful and foolish to do so. The policy of steadily, aimlessly, and blindly voting down salaries will, in the long run, leave any public authority which continues to do so just as it would leave a private firm—with the managerial leavings. As a policy of dealing with officials it is no use.

Mr. Jowett also dealt with the weak point in municipal administration—the frequency with which officials change, going to other municipalities, or transferring their services to companies. Also, that small municipalities are obliged to pay large salaries in order to get efficient men. He makes, in this connection, a suggestion which shows the value of his penetrative ability, and which municipalities should consider. He says:—

> All the largest corporations are trying to monopolise for their own service a number of experts that are insufficient to go round. The result is that the majority of them are paying first-class salaries for second or third-rate men. There is no need for this if the corporations would face the situation. Why should not all the corporations join in the services of the best men they now compete for by jointly employing them as consultants? A sufficiently large salary could be paid by the associated corporations, and each individual corporation requiring the services of one of them could pay consultation fees on an agreed scale into the common pool. The officials employed in the individual corporations could then be recognised frankly as what they now really are in most cases—second or third-rate men—and paid accordingly. As things stand, a large proportion of the chief officials in the municipal service are enjoying salaries which were fixed in the expectation that someone would apply who failed to do so.

Mr. Jowett also says that, as a protection against the irresponsible way in which officials flit from place to place:—"It is time that all public representatives reversed the old procedure of speeding the parting guest. An ordinary man, accustomed to the conduct of big businesses, would not entrust the carrying out of his important schemes to one who he had reason to believe might leave him at any time. And why should a corporation either?"

NOTES AND ANSWERS.

(*Continued from Page 335*)

701.—COMPENSATION TO OFFICERS UNDER THE LONDON GOVERNMENT ACT.

I should be much obliged if you could inform me in your column whether I could claim compensation from a London borough under the following circumstances. Before the passing of the London Government Act, I was in the service of a vestry—was taken over when the council was formed, at same salary, and in same position. A promotion that I thought I was entitled to has not come, and I, feeling humiliated, think of asking the council to abolish my office and grant me compensation. Can I, under the Local Government Act, do this? I was fourteen years with the vestry, and am under forty years of age.—"YUNEEK."

Sec. 30 of the London Government Act, 1899, authorises metropolitan borough councils to abolish the office of any officer taken over from the old authority whose office "they may deem unnecessary." It also provides for the grant of compensation to any such officer who is required by the council to perform duties such as are not analogous, or which are an unreasonable addition, to those which he was required to perform at the passing of the Act of 1899. It does not seem to us that our correspondent's case comes under either of these classes. Presumably the council has settled long ago the cases in which it desired to abolish offices existing at the passing of the Act of 1899; and the only other ground of claim to compensation would arise from a resignation consequent upon the council requiring an officer to perform different duties from those performed before the passing of the Act, or else from the council placing upon such officer greatly increased duties.

RECENT LEGAL DECISION.

Nuisance from Drains.—Action against Sanitary Inspector Arising out of Discharge of his Duties—"Tindall v. Harrison."

We are indebted to the Medical Officer of Health of Sheffield for a report of a recent decision in the Sheffield County Court affecting the liabilities of a sanitary inspector in the discharge of his duties. The decision does not lay down any new principle, but is, nevertheless, one of interest and importance to the various sanitary officers, who are so often opposed in many ways and threatened with legal proceedings while acting in the discharge of their duties. T, the owner of certain property, sought to recover from H, a sanitary inspector, £5 damages for false statement and misrepresentation. It appeared that the Corporation of Sheffield, early last year, was raising the level of a sewer in the road in which T owned the property, and it was found that the drain connecting T's premises with the sewer was a rubble drain. H thereupon made a complaint to the council, stating that, in his opinion, the drain was a nuisance, and injurious to health. The written application under Sec. 41 of the Public Health Act, 1875, must be, in the majority of cases, to some extent, speculative. Anybody could make this statutory application on reasonable suspicion that a drain was a nuisance. The section protected the owner where this written application proved to be ill-founded. In the case before the court, however, the inspector, who was the maker of the application, was careful to ascertain before he made it that the drain was a nuisance, and the necessary authority was given for the drain to be opened. When the drain was opened, it was found to be a nuisance. It was a dry rubble drain, with a bottom of pervious clay; sewage stood in the bottom, and the sewage that found its way from the drain into the sewer did so by a sort of zig-zag path through the silt which stood in the drain to the extent of an inch in depth. In the result the judge held that the inspector had proved, most conclusively, that he had acted in a perfectly *bonâ-fide* and straightforward way in the performance of his duties, and judgment was given accordingly for the sanitary inspector.

EMIGRATION OF STATE CHILDREN.*

A State-Aided Scheme for the Emigration and Training of Poor Law Children Over Whom Guardians Have Assumed Parental Rights, Framed on the Basis of Joint Action Between the Colonies and the Motherland. Advantages Claimed as Against the Present Methods of Drafting Children Through Private or Religious Agencies. Ratepayers Point of View.

By Mr. C. KINLOCK COOKE.

WHILE I deplore the short-sighted policy of our forefathers, it is evident that with the heavy taxation necessary for defence purposes and other calls upon the Exchequer at home, with an increasing National Debt and the income-tax at a shilling in the pound, there is not much chance of the Home Government embarking upon a general policy of State emigration either now or in the near future. But what may not be possible on a general basis assumes an entirely different aspect when applied to any one portion of the community—to that portion, for instance, consisting of the children, excluding inmates of reformatories, who for one reason or another become a charge upon the public funds; that is, children of the State or children to whom the State stands in one form or another *in loco parentis*.

These children may be divided into two classes—Home Office children and Poor Law children. To the first belong the children, numbering many thousands, committed by magistrates to industrial schools, in order to save them from injurious surroundings. This class falls under the jurisdiction of the Home Office, the funds being provided by the Treasury, local authorities, the successors of the school boards, and voluntary donations. To the second division belong the children resident in Poor Law unions or boarded out, classed in the report of the Local Government Board as "orphans and children relieved without their parents." These children come under the jurisdiction of the Local Government Board; but for their maintenance, education and general upbringing the guardians are primarily responsible, the funds being provided from the local rates.

Work for a Department of State.

I believe that the great majority of these children might be emigrated without involving any further extension in the delegation of parental responsibilities than is now permitted, and without any further charge on the public exchequer. I feel sure also that, properly trained, and given new surroundings, these children, if carefully selected, would make useful colonists. The work, however, would have to be undertaken by a department of State in this country, acting with similar departments in the Colonies, each bearing a share of the cost, in accordance with a plan drawn up by an Imperial Council specially convened for the purpose and submitted to the different legislatures for ratification. But here, again, the difficulties in the way are many, and the uniform emigration of State children on so large a scale would be certain to raise various economic questions here and in the Colonies the settlement of which might take years to accomplish.

This brings me to the scheme for the emigration of State children which I desire to put before you to-day. It deals only with Poor Law children, and only with that class, "the orphan and deserted," over which the guardians have assumed parental rights. Of these 8,372 were boarded out last year, and may be said to be available for immediate emigration. But there are other circumstances to be taken into consideration. All may be available, but all are not eligible. Allowing for the disqualification of the physically unfit, this number would probably be reduced to 6,000, including children (boys and girls) of all ages between ten and fifteen years, of which, say, 5,000 would be eligible for emigration purposes. It may be said that I have omitted to take into consideration the very stringent regulations imposed by the Local Government Board on the private agencies respecting the emigration of girls over eleven years of age, and the general rule refusing permission to boards of guardians to emigrate girls except under the same limitations. I am not guilty of any such omission, and I am aware that in the present circumstances these regulations would doubtless require me to make a further reduction; but if my proposals be accepted by the Colonial Governments, I take it that the Local Government Board's restrictions would be no longer necessary, and could, therefore, lapse. Accordingly, my number of 5,000 may, I think, be allowed to stand.

The Scheme in Outline.

The scheme which I propose for adoption by the Colonial Governments and the boards of guardians acting in connection with the Local Government Board may be thus briefly outlined:—

Each Colonial Government to undertake—

- To provide one or more agricultural homes or farms where the children would be educated, brought up, and trained under direct Government supervision, for work in the colony. And to place out the children in suitable situations.
- To pass such local Acts as may be required to meet the new circumstances, and to draw up rules and regulations (approved by the Local Government Board) for observance in the administration of the homes.
- To institute an adequate system of Government inspection until the child reaches the age of eighteen.

Each board of guardians to undertake—

- To hand over the children, where possible, at the age of ten years.
- To allow representatives of the Colonial Governments to select the children.
- To pay each Colonial Government, in a manner hereafter to be arranged:
  - A sum of money, annually or otherwise, equal to the sum paid for bringing up the children here, the amount not to exceed in any one case the expenditure for four years.
  - An agreed sum, annually or otherwise, for the cost of inspecting each child until the child reaches the age of eighteen.

The Present System.

One of the chief drawbacks to the present system of emigrating poor-law children is that they get no special training for the work they will be called upon to do almost immediately on their arrival in the colony. So far, child emigration has only been carried on with Canada, and all that the Dominion Government insists upon is that, prior to emigration to Canada, the Poor Law child shall have received instruction for at least six months under the board of guardians, or in a public elementary school, and all that Dr. Barnado insists upon is that Poor Law children passing through his agency shall reside for a period varying from three to six months in one of his English homes prior to emigration. He gives three reasons for this detention—for which, of course, he receives the usual payment from the guardians—but no one of them has any reference to the question of training. Again, as nearly all the orphan and deserted children are boarded out by the guardians, it is clear that no attempt on their part is made to specially train the children for life in Canada.

Nor do these children get any training in Canada before they are placed out in their situations. They go direct to a receiving home, and are drafted out as quickly as possible to the situations which await them. And the number is very greatly in excess of the supply, the applications for child immigrants last year sent out through the private agencies being in the proportion of eight to one.

Selecting Children.

I would lay particular stress on the fact that my scheme gives to the Colonial Governments the option of selecting their own children. For it is no part of my desire to save the responsibilities of the ratepayers by making the Colonies a dumping-ground for children likely, as men and women, in any way to become undesirable settlers.

Finance.

The only direct expense I propose to charge to Canada is the initial outlay in connection with providing the farm lands and buildings. This would be Canada's contribution for securing a continuous stream of selected children from the old country—children not altogether unacquainted with discipline, and already possessing in many cases the rudiments of elementary education. Moreover, as time goes on, these farms would become self-supporting, and might even be worked at a profit, in which case the profits would be taken first in reduction of capital, and secondly in reduction of annual expenditure. Again, seeing the great demand for these children in Canada (16,573 applications were made last year alone), there is no reason why persons desiring to secure the services of a trained boy should not pay a fee to the Canadian Government for this privilege.

But what about the ratepayers? How would my scheme affect them? Let us see. Taking the present age for emigrating Poor Law children to be thirteen or fourteen, and assuming these children to have been boarded out since the age of ten, then, if the dimensions of the emigration remain stationary, the cost to the ratepayers under my scheme would be much the same as it is now. But, on the other hand, bearing in mind that a Poor Law child is not placed out in the world until the age of fifteen or sixteen, if the dimensions of the emigration be increased so as to include all children eligible and selected, there would be a saving to the ratepayers of at least two years' keep on every additional case dealt with at the minimum age; that is, where the children are boarded out, 5s. a week, or a total saving of £30; and where the children are brought up at a school like the institution at Ashford, 14s. a week, or a total saving of some £72 for every additional child emigrated.

Although a State-aided scheme, I do not expect all at once to see a department inaugurated in Downing-street to carry out the work connected with my proposals. My idea is at first to entrust the work to a responsible committee recognised by the State, which would undertake voluntarily the duties now performed as an act of benevolence by the philanthropic agencies. This committee would be the intermediary between the Boards of Guardians and the Colonial Governments, conducting the negotiations as agents for both parties through the usual official channels, subject to the supervision of the Local Government Board. It would be appointed somewhat in the same way as the Metropolitan Asylums Board. Meanwhile, I am forming another committee, whose duties are more academic in character. Their main duties will be to press forward the changes I have indicated in our Poor Law administration and to lead public opinion, both here and in the Colonies, towards a truer appreciation of the political and economic advantages which cannot fail to accrue to the Empire from a properly-conducted system of State-aided emigration for children of the State.

* From a paper read before a meeting of the Royal Colonial Institute.

DIALITE

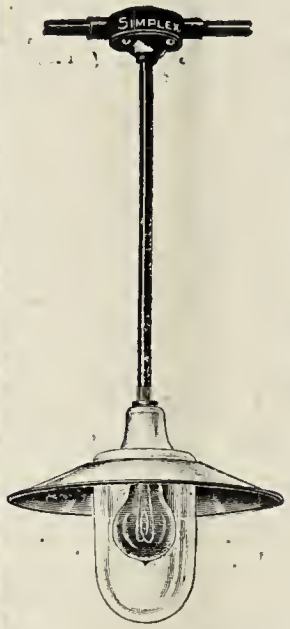
THE STANDARD CABLE FOR ALL PURPOSES.

THE ST. HELENS CABLE CO., Ltd.,
WARRINGTON.

The SIMPLEX

4 GOLD MEDALS AWARDED.

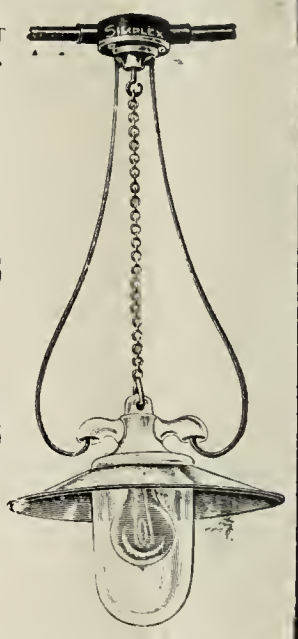
STEEL CONDUIT SYSTEM.



To obtain the MOST satisfactory results, USE

SIMPLEX SCREWED HEAVY GAUGE CONDUITS AND SIMPLEX WATERTIGHT FITTINGS

FOR ALL YOUR ELECTRICAL INSTALLATION WORK.



Write for Lists and Particulars,

The Simplex Steel Conduit Co., Ltd.

80, DIGBETH, BIRMINGHAM. AND 20, BUCKLERSBURY, LONDON, E.C.

NO MORE FIRES from electric wires. IMPORTANT to MUNICIPAL AUTHORITIES.

IMPROVED ELECTRIC WIRING

The only SAFE SYSTEM. ABSOLUTELY PREVENTS all DANGERS arising from the Fusing of Wires. FIRES from this SYSTEM have NEVER OCCURRED.

In Use at Car Sheds of British Tramways, Portsmouth Tramways, London United Tramways, Dublin Tramways, and Municipal Buildings at Glasgow, Newport, Cardiff, Brighton, &c.

Manufacturers: CONDUIT & INSULATION COMPANY, Limited,

Telegrams: "Koming, London." RIVERSIDE ROAD. SUMMERS TOWN. S.W. Telephone: 11, Wimbledon.

COOLEY'S

PATENT

DOUBLE DOWEL-PINS
WILL REVOLUTIONISE
WOOD PAVING.

These DOWELS form a solid mass, effectively counteracting vibration, and thereby considerably increasing the life of the road.

For WOOD-BLOCK FLOORING this system of DOUBLE DOWELLING is recommended in all cases where the floors are subject to heavy traffic, such as in Factories, Warehouses, Public Halls, Schools, Sheds and Yards, &c.

FOR PARTICULARS APPLY—THE

WOOD-PAVING EXPANSION-CHANNEL & PIN CO.,

H. Cooley, C.E., *Managing Director.*

154, St. Saviour's Road East, LEICESTER.

ENGLISH INSTRUMENTS.

LATEST. CHEAPEST. BEST.

Some Important Specialities just placed on the market—

CALCULATING SLIDE RULE, by Prof. Perry. SCALE GRADED CURVES, by J. Harrison, M.I.M.E., A.M.I.C.E., Wh.Sc. THE VALOMETER, TRANSPARENT-EDGE T-SQUARES, COLOURS, PENCILS, etc., etc.

Just published, post free, New Edition of CATALOGUE, with Coloured Illustrations.

A. G. Thornton,
PRACTICAL MANUFACTURER,
Contractor to H.M. Government.
34, KING ST., WEST,
MANCHESTER, ENG.

DRAWING INSTRUMENTS.

Special make, arrangement, and finish. The most practical and useful to be had, and quite different to what are usually sold.

TEMPERANCE PERMANENT
BUILDING SOCIETY,
4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS

For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years
£1:1:1	18:4	16:4	15:6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager.

BIRKBECK BANK
ESTABLISHED 1851.

2½ per cent. INTEREST
allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST
allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.

STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C.

PEARL ASSURANCE CO.,
LIMITED.
Chief Offices—London Bridge, City, E.C.

Annual Income	£1,382,000
Funds Increased during year 1904 by ...	£352,000
Claims Paid	£4,263,000

Additional representatives wanted.
P. J. FOLEY, Managing Director.

PATENTS FOR SALE
(ENGLISH AND GERMAN).

One for utilization of the Tide for Motive Power; also patent for Improved Road Paving, or will make other arrangements with any financial gentleman to float a company or syndicate, etc. Circulars containing full particulars will be forwarded by post on application to A. W. Moore, 12, Chatham Place, Hackney, N.E.

ELECTRICITY SUPPLY.

Sir Albert Rollit, M.P., LL.D., and the Question of Antiquation, Depreciation, and Obsolescence. Striking Growth of the Electricity Undertaking at Blackburn. The Last Nine Years show Instructive Comparisons. A Total Revenue of Over £28,000. Competition in the Supply of Fittings.

BLACKBURN Electricity Department has the benefit of a tramway load which is equal to about twice the private output, and its costs are, therefore, low. In comparing results, the output and load-factor are important items, and if there is a large output, combined with a high load-factor, for an undertaking situated in a busy manufacturing town, close to the coal-fields, it is natural to expect low costs, which, in this case, is fully justified. The capital charges are moderate, and slightly less than the gross cost, while the average rates received are distinctly favourable to the public. The traction supply is sold at a fair rate (1½d. per unit), so that the average for all the current sold is 2.195d. per unit. The aggregate receipts from current are slightly less than the total actual cost, so the surplus is earned by the fittings department, and meter rentals, which, discarding other considerations, is a good showing, and does not, in one sense, prove adverse to the general grounds upon which municipal undertakings of this class are leased. On the other hand, the question of a corporation entering upon the supply of fittings in direct competition with its own ratepayers, is with the advent of the power companies likely to be raised again in an acute aspect. The balance of the net revenue account for the year ended 25th March, 1904, amounted to £976, and this has very rightly been placed to the credit of a depreciation fund account. The growth of the undertaking is shown by the following figures:—

Year.	Dec., 1895.	1896.	March, 1899.
Units sold, private ...	37.520	123,116	297 963
,, ,, public ...	11,802	38,884	70,124
,, ,, traction .	—	—	—
Total units sold ...	49,322	152,000	368,087
Units generated ..	61,500	171,299	470,716
Total maximum supply demanded ...	127 k.w.	261 k.w.	560 k.w.
No. of public lamps .	18	18	74 arcs, 34 incan.

Year	1901.	1903.	1904.
Units sold, private ...	555,052	771,523	855,105
,, ,, public ...	179.780	240,300	254,364
,, ,, traction ...	425,029	1,491,891	1,785,712
Total units sold ...	1,159,861	2,503,714	2,895 181
Units generated	1,303,498	3,010,899	3,327,116
Total maximum supply demanded	1,112 k.w.	1,638 k.w.	1,778 k.w.
No. of public lamps ...	80 arcs 248 incan.	202 arcs 439 incan.	202 arcs. 432 incan.

Details.

THE statement of the electricity accounts for the year ended 25th March, 1904, shows that:—

The revenue derived from sales of current &c., amounted to		£23,550
And the working expenditure to		13,893
Leaving a gross profit of		£14,657
Out of this sum the following requirements were met:—		
Interest on mortgage debt	£5,599	
Interest on public works loan	596	
Instalments repaid	3,020	
Sinking fund	4,008	
Total of capital charges		13,223
Nett surplus for year		£1,434
Add bank interest received		201
Gross surplus for year		£1,635
Less previous deficit balance		658
Balance at end of year		£977

The amounts received and proportion of sales were as given in the next table:—

Blackburn, 1904 (March).	Units.	Yielding.	Per unit.
Private consumers took ...	855,105	£13,019	= 3·654d.
Public lamps consumed ...	254,364	2,304	= 2·174d.
First interim total ...	1,109,469	£15,323	= 3·315d.
Traction sales amounted to	1,785,712	11,161	= 1·500d.
Second interim total ...	2,895,181	£26,484	= 2·195d.
Meter rentals	—	383	= ·032d.
Rental of motors, &c. ...	—	456	= ·038d.
Sales of lamps and fittings	—	1,227	= ·102d.
Bank interest	—	201	= ·016d.
Revenue in all... ...	2,895,181	£28,751	= 2·383d.
Units used on works ...	77,752		
Total accounted for ...	2,972,933	(The maximum load was 1,778 k.w., equivalent to a load factor of 18·59 per cent.)	
Utilised on distribution...	264,183		
Total units generated...	3,237,116		

Appropriations.

THE amount received was taken up and appropriated thus:—

	Amount.	Per unit.
Works cost	£8,910	= ·738d.
Rates, taxes, and management .	3,793	= ·315d.
Total cost	£12,703	= 1·053d.
Public lamp maintenance ...	1,190	= ·099d.
Gross cost	£13,893	= 1·152d.
Interest charges	6,195	= ·513d. } 1·096d.
Sinking fund and repayments..	7,028	= ·583d. }
Total actual cost of units sold	£27,116	= 2·248d.
Add surplus for year	1,635	= ·135d.
Revenue in all.. ...	£28,751	= 2·383d.

The capital account at the end of the financial year contained the following items:—

Lands	£541
Buildings	35,973
Machinery and plant	86,678
Accumulators	4,153
Mains and services, &c...	75,961
Motors	5,429
Meters and indicators	7,398
Transformers and boxes	2,340
Electrical instruments	498
Various	1,476
Total capital invested . .	£220,467

Crusted and Fossilised.

IN this section of the Journal we do not pretend to a deep knowledge of such subjects as were treated by Sir Albert Rollit in his address to the members of the Association of Municipal Corporations, but as engineers we may be permitted to express an opinion on one aspect of the broad subject. One of the dailies, while admitting that "the vast outlay of our towns has produced tramways, electric lighting works, and many other business concerns, which would fetch a substantial sum if sold in the open market," points out, in terms which have been used over and over again in these columns, that "at the same time the progress of science is so rapid that costly machinery may be antiquated within a few years of its erection. On few municipalities, and only the most important, are business men familiar with problems of finance and competent to criticise proposals to be found, and when they can be induced to serve they not infrequently find their advice flatly disregarded." Here our critics are not speaking quite to the book. On most municipalities men are to-day expressing the same opinions as supporters of municipal enterprise, conducted on sound business lines. It behoves the engineer to support them, but too often a municipal officer becomes crusted and fossilised, bound up in red-tape, and blind to the object-lessons around him. This is, however, rather likely to be mended by the rapid influx of younger men into the ranks, and those who have to face the brunt of keen competition in a purely competitive businesslike electricity supply are not given to lag behind. They are engineers first and municipal officers afterwards, and by their addition to the staff there is an element of enthusiasm brought into play which counts for a great deal. Over-caution is bad in business, but the average municipal official is bound to be cautious to a degree.

Arrangements have been made for the issue, in connection with the Newcastle Corporation tramways, of celluloid tokens, for the use of messengers and others, in place of copper coins. The plan is for the convenience of tradesmen, manufacturers, and employers generally, who have occasion to send messengers by tram.

'RONUK' (SANITARY) POLISH FOR FLOORS.

Awarded Bronze Medal of the Royal Sanitary Institute. Only Award ever granted to a Polish.

POLISHES, PRESERVES, & PURIFIES. PREVENTS the HARBOURING of GERMS.

Used in the principal Hospitals, also in the National Gallery, Tate Gallery, Hertford House, &c., &c.

CONTRACT DEPARTMENT.

"RONUK," Ltd., make a Speciality of Polishing all kinds of Flooring. A large Staff of Specially Trained Workmen is kept by the Company, and inquiries for Estimates for the first preparation or maintenance of any new or previously unpolished Floors will receive immediate attention.

A Sample, with Full Particulars and Prices, will be sent Free to any Institution on application.

"RONUK," Ltd., Head Office and Factory, Portslade, near Brighton.

LONDON DEPOT: 86, York Road, Lambeth, S.E. MANCHESTER DEPOT 285, Deansgate.

TICKET PUNCHES.

As adopted by Corporations, Tramways, 'Buses, Steamboats, &c.

ENQUIRIES SOLICITED.

THE TICKET PUNCH & REGISTER CO., Ltd.,
46, Queen Victoria Street, London, E.C.

WM. GRIFFITHS & Co., Ltd.,

35 to 39, HAMILTON HOUSE, BISHOPSGATE STREET WITHOUT,
LONDON, E.C.,

CONTRACTORS FOR CONSTRUCTION OF TRAMWAYS

AND MUNICIPAL WORK OF ALL DESCRIPTIONS.

QUARRY OWNERS AND STONE MERCHANTS.

LARGE STOCKS ON HAND OF

PITCHINGS, KERB, MACADAM, YORK STONE, JARRAH TIMBER, &C.

TELEGRAPHIC ADDRESS—"GRIFFITHS, STONE, LONDON." TELEPHONES—Nos. 2868 and 2869, LONDON WALL.

In Use in over 100 CENTRAL and POWER STATIONS,
AND MANY THOUSAND PRIVATE INSTALLATIONS.

E. P. S. STORAGE BATTERIES

ARE MANUFACTURED ONLY BY THE

ELECTRICAL POWER STORAGE CO.,
4, GREAT WINCHESTER ST., LONDON, E.C.

Telegrams—"STORAGE," LONDON. Telephone—No. 1253, London Wall.

JERRARD'S (PATENT) AUTOMATIC RAIL CLEANERS

Ensure a Clean Rail, both Groove and Head, at All Times and in All Weathers.

NOW IN USE ON OVER 50 OF THE PRINCIPAL SYSTEMS IN UNITED KINGDOM.

RELIABLE. EFFICIENT. DURABLE.

HAVE STOOD ALL TESTS.

For Particulars as to Price, etc., Apply—
JERRARD'S AUTOMATIC TRACK CLEANERS, LTD., 598, Commercial Road East, London, E.
Or to the Sole Agents for United Kingdom—
BRITISH GRIFFIN CHILLED IRON AND STEEL CO., LTD., 139, Cannon Street, E.C.

LONDON TRAMWAYS.

A Reply to Critics.

(*To the Editor.*)

SIR.—My attention has been called to a circular letter which has been issued by Messrs. Thomas Tilling, Ltd., omnibus proprietors, with the intention of exciting opposition to the proposal contained in the Council's Tramway Bill of the present Session for the construction of tramways over Westminster Bridge, along the Victoria Embankment, and over Blackfriars Bridge, to connect the existing tramway termini in Westminster Bridge Road and Blackfriars Road. The letter contains the following paragraph:—

> You can safely affirm that these tramways are not self-paying, and that a better service can be given to the travelling public with motor omnibuses by private enterprise, and without being a burden to the rates.

This statement is, to my mind, likely to so seriously mislead the House of Commons in its consideration of the Council's proposals that I desire to trespass shortly upon your space to indicate what are the facts concerning the working of the Council's tramways.

The Council's tramways have from the first year that it acquired control of any lines in London been entirely self-supporting, and they will continue to be so. Even during the years when the bulk of the tramways south of the Thames was being reconstructed for electrical traction, entirely disorganising the ordinary traffic (some of the lines being closed altogether), the tramways account has never been a charge to the extent of a single penny upon the rates. On the contrary, the tramways have already, during the past eight years, paid from surplus revenue in reduction of rates, after the provision of interest and sinking fund charges, a sum of over £293,000, divided between the Northern and Southern systems.

The following details as to the application of the moneys received from the tramways account during the past eight years, in respect of the Council's systems North and South of the Thames, indicate the absolute inaccuracy of Messrs. Tilling's statement:—

	£
Applied in reduction of rates, over	293,000
Amount paid for sinking fund charges in reduction of debt during the same period (Northern system, which has been in Council's hands for eight years, £117,044; Southern system, which has been in Council's hands six years, £210,195; and general, £6,997)	334,236
Amount paid for interest on capital	414,000
Amount set aside as a reconstruction, renewals, and reserve fund for the Southern system...	66,000
Amount paid in rates and taxes in respect of the Southern system during the past six years	90,000
Amount paid in reduction of debt from proceeds of sale of horses, rolling stock, surplus property, &c.	126,220

During the four years from 1889 to 1903, the forty-eight miles of tramways North of the river, which are leased by the Council, earned as profit, after paying interest and sinking fund charges, £153,700; while the twenty-four miles on the South side of the Thames, worked by the Council itself, during the same period, provided, after paying corresponding charges, the sum of £72,900.

During the period of reconstruction, there was a deficiency in the Southern tramways accounts of £2,250 in 1902-3, and of £8,284 in 1903-4. This result was brought about by the Council paying interest and sinking fund charges of £12,300 on expenditure incurred for reconstruction before a single electric car was run on the lines creating those charges. Moreover, during the first-named year, a sum of £11,000 was set aside out of revenue for the renewals fund for the horse lines which were, at the time, entirely disappearing. The result of this was to give to the Council as an asset in the way of a renewals reserve fund a sum of £30,750 at the commencement of electrical working, before any wear and tear had begun, and the "account deficiency" is thus amply covered by assets more than corresponding thereto.—Yours, &c.,

J. ALLEN BAKER
(Chairman, L.C.C. Highways Committee).

Wigan Opening.

COLONEL DRUITT last week inspected the Wigan Corporation tram routes from Wigan to Ashton through Poolstock, and from Ince Bar to Hindley boundary. The inspection appeared to give satisfaction. There has been a marvellous linking of the out-townships with the coal metropolis.

York Negotiations Discontinued.

AT the last meeting of the Streets and Buildings Committee of the York Corporation, the question of the negotiations between the Committee and the York Tramways Company as to the purchase of the undertaking came up for discussion. The last offer made by the Corporation was £9,000, to which the Tramways Company responded by asking £12,000. Since then negotiations have been conducted between the two bodies, without definite result, and it has now been decided to recommend the Council to discontinue the negotiations.

Belfast Award.

THE arbitrator, Mr. L. L. Macassey, has delivered his award in the matter of the purchase of the undertaking of the Belfast Street Tramways Company by the Corporation. He decides that the total amount to be paid by the Corporation to the company is £296,948 14s. 6d., in addition to the Corporation taking upon itself the liability for the company's debentures, which amount to £60,000. This is equivalent to an award of £356,948 14s. 6d. The directors estimate that this will enable them, after paying off the Preference shares at par, to make a distribution of about £10 15s. per Ordinary share.

Surrey Scheme Commenced.

THE work of constructing the fifteen route miles of electric tramways in Surrey, forming an extension of the existing tramway system of the London United Tramway Company in Middlesex, was formally commenced on Monday, a start being made about nine o'clock in Kingston Road, New Malden. Mr. J. Clifton Robinson, C.E., the managing director of the London United Tramway Company, was present, as well as the Mayor of Kingston-on-Thames (Mr. H. C. Minnitt) and Mr. A. Streeter (the chairman of the Malden and Coombe Urban District Council), and members and officials of local authorities. Mr. Clifton Robinson having addressed the assembly, giving a brief description of the scheme, the ceremony of wielding the first pickaxe was performed by the Mayor of Kingston, and about 400 navvies were speedily employed digging up the road.

Wednesbury and the Trust.

IN a report issued a few days ago, the Wednesbury Corporation Highway Committee stated that it had received from the South Staffordshire Tramways (Lessee) Company plans and specifications for the reconstruction of the track between Wednesbury and Darlaston, on which the steam cars ceased running about eighteen months ago. Inquiries in official quarters show that nothing is known as to whether it is intended to re-open the line for traffic in the immediate future. The deadlock between the Corporation and the company apparently continues, though negotiations are still in progress which may lead to a settlement of the terms on which the lines shall be leased to the company. A special meeting of the Town Council has been convened to authorise the purchase of the portion of the local tramway undertaking within the borough.

MR. H. GRAHAM KING, chartered accountant, the professional auditor of the City of London Corporation and of the Corporation of Aberystwith, has removed from 118, Queen Victoria Street to new offices at 17 and 18, Telegraph Street, E.C.

DICK, KERR & CO., LIMITED.

Manufacturers of all kinds of Electrical Machinery.

Contractors for Municipal Lighting and Tramway Schemes.

HEAD OFFICE: ABCHURCH YARD, CANNON STREET, LONDON, E.C.

WORKS: PRESTON, LANCS., AND KILMARNOCK, N.B.

"MUNICIPAL JOURNAL" ANALYSES OF ELECTRIC TRAMWAY ACCOUNTS.

1903-4.

	Population.	Date tramways started.	Length of street route. Miles.	Gauge. Ft.	In.	Capital outlay. £	Number of passengers carried.	Number of car miles run.	Total receipts. £	Working expenses. £	Percentage of expenses to rec'pts %	Nett receipts. £	Percentage of nett receipts to capital. Per cent.	Interest charges and lease rentals. £	Repayment charges. £	Surplus (+) or loss (−). £	Provision for depreciation and reserve. £	Contribution to rate fund.	Traffic receipts per car mile. d.	Expenses per car mile. d.	Average fare per passenger. d.	Electricity supplied by	Number of B.O.T. units used.	Price paid or cost of electricity per unit. d.
Aberdeen ..	165,000	Aug., 1898	14·14	4	8½	314,407	15,538,167	1,379,723	64,071	37,054	58	27,017	8·59	10,389	2,397	+14,231	14,231	nil	11·00	6·45	·98	Elec. Dpt.	1,525,708	1·52
Ayr	33,000	Sept., 1901	5 69	4	8½	71,775	3,316,380	353,945	14,334	7.622	53	6,712	9 35	2,303	891	+3,518	3 518	nil	9·46	5·17	1 01	Elec. Dpt.	324,157	1 30
Birkenhead ..	113,300	Feb., 1901	13 52	4	8½	345,960	11,327,932	1.349,701	55,946	34.748	62	21.198	6·13	10,538	8.777	+1,883	1,883	nil	9·72	6·18	1·16	Own wrks	2,128,607	·72
Blackpool ...	50,000	1885	9·62	4	8½	267,178	6,357,218	735.103	42,061	27.873	66	14,188	5·31	8.422	5,713	+53	nil	nil	13·50	9·10	1·56	Elec Dpt.	1,008,529	1·83
Blackburn ...	188.000	1887	14·13	4	0	320,203	7,742.692	951,484	44,682	29 369	66	15.313	4·78	8,818	11.633	—5,138	nil	nil	10·94	7·41	1·34	Elec. Dpt.	1,785,712	1·50
Bolton	171.100	Jan., 1900	25·13	4	8½	504,509	19.895,496	2.188,030	95,096	54.716	58	40,380	8·00	12,233	13.654	+14,493	12.233	2,260	10·33	6·00	1·14	Elec. Dpt.	3,098,292	1·25
Bournemouth ...	60 000	July, 1902	12·25	3	6	257,812	9,363 985	1,022,164	54,397	30,276	56	24,121	9·36	9,051	7.336	+7,734	nil	nil	12·31	7·11	1·34	Own wrks	1.601,039	·86
Bradford	324,000	July, 1898	48·52	4	0	818.205	39,639,44	4,546,942	197,438	135,869	69	61,569	7·52	*48,169	—	+13 400	2,917	nil	10·20	7·17	1·17	Elec. Dpt.	7.731.563	1 0
Brighton	123,500	Nov.. 1901	9·95	3	6	242.811	10,999,046	1,151,477	46,264	40,356	87	5,908	2·43	7,199	3,488	—4,779	nil	nil	9·60	8 41	1·00	Elec. Dpt.	1,774,988	1·50
Burnley	154,000	Dec., 1901	10·77	4	0	176,468	7,514,063	896,397	43,738	30,644	70	13,094	7·42	6,132	3,426	+3,536	3,536	nil	11·58	8·20	1·38	Elec. Dpt. & Nelson Crp.	1,461,700	1·79
Burton-on-Trent.	52.000	Aug.. 1903	5·74	3	6	82,500	2,566,134	282.378	11,943	8.919	75	3,024	3 67	1,533	773	+718	718	nil	9·84	7 58	1·08	Elec. Dpt.	362.827	1·46
Cardiff	168,000	May, 1902	14 63	4	8½	687,222	23,574,204	2 643.762	105,017	65.351	62	39,666	5·77	19,219	14,084	+6,363	403	642	9·24	5·93	1·04	Own wrks	5,896 506	·45
Chester	39,000	April, 1903	2·50	3	6	66,098	2,002,835	260,785	8,916	5,332	60	3,584	5·42	2,026	1,218	+340	nil	nil	8·17	4·91	1·06	Elec. Dpt.	239,072	1·75
Darwen	40,000	Oct.. 1900	4·36	4	0	79,272	2,236.102	253.345	12.371	8 413	68	3,958	4·99	2,411	1,982	—435	1.050	nil	10 92	7·97	1·24	Elec Dpt.	422 583	1·71
Dover	42,000	Sept., 1897	3·00	3	6	41,850	2,871,332	280,901	11,839	8,714	74	3,125	7·47	*2,205	—	+920	nil	nil	9·63	7·45	·94	Elec. Cpy.	319,413	2·75
Dundee	163,000	July, 1900	12 65	4	8½	263,382	11,420,985	942,969	44,437	28,521	64	15,916	6 04	6,837	5.000	+4.079	2.842	nil	11·15	7·26	·92	Elec. Dpt.	1,661,721	1·49
East Ham ...	104,000	June, 1901	6 82	4	8½	135,591	12,950,269	807,002	35,301	24.262	69	11.039	8 14	5,806	3,285	+1,948	1 356	nil	10 20	7·22	·64	Elec. Dpt.	920.696	1·75
Farnworth ...	50,000	Jan., 1902	4·33	4	8½	43,696	1,532,293	242.524	7,486	4 850	65	2,636	6·03	3 241	1,175	—1,780	nil	nil	7 40	4·80	1·17	Elec. Dpt.	317,126	·50
Glasgow	1,000,000	July, 1894	70·34	4	7¾	2,107,880	188.962.610	16,291,082	724,851	356,820	49	368.031	17·46	64,376	45.553	+258,102	233,102	25 000	10·58	5·26	·91	Own wks.	15,372.609	·42
Halifax	168,000	June, 1898	33 41	3	6	342.460	16.322 059	1.387.885	68.289	50.758	74	17,531	5·12	9.957	7.081	+493	493	nil	11 76	8·78	1·00	Elec. Dpt.	2 659.920	1 62
Huddersfield ...	100.000	Feb., 1901	28	4	7¾	411.722	11.899,287	1,632,000	65.883	34 665	53	31,218	7·58	13 632	10,638	+6,948	11,687	nil	9·37	5·10	1·28	Own wks.	2,565,643	·34
Hull	248.000	July, 1899	13 60	4	8½	383,977	24 220 718	2 512.821	101.259	63 194	62	38.065	9·91	9.932	9.148	+18.985	7,485	11.500	9·61	6 04	1·00	Own wks.	3 285,621	·63
Ilford	52,000	Mar.. 1903	6·50	4	8½	132,874	5,274,025	577,034	23,218	13,568	58	9,650	7·26	3,046	2,033	+4,571	4,571	nil	9 39	5 64	1·03	Elec. Dpt.	563,464	1·50
Kirkcaldy ...	34,100	Feb., 1903	5·25	3	6	78,731	2,770,936	301,779	10,189	7,623	75	2,566	3 26	2.012	471	+83	40	nil	7 90	6·06	·86	Elec. Dpt.	395,071	1·75
Lancaster ...	40,300	Jan.. 1903	3·41	4	8½	27,207	1,079,772	153,692	4,191	4,654	111	*loss* 463	—	1.245	1.125	—2.833	nil	nil	6·54	7·27	·93	Elec. Dpt.	199,600	2·00
Leeds	446 400	Feb , 1894	42·51	4	8½	1,107.977	60,739,234	6.091,437	281,418	155,598	55	125.820	11·36	27.639	27.094	+71.087	19.087	52,000	10·94	6 13	1·10	Own wks.	9 518,680	·34
Liverpool... ...	760,000	1868	57	4	8½	1,863,485	113,057,234	11,734,838	533,394	335,621	63	200,773	10·77	52,932	51,598	+96,243	64,162	32,081	10·73	6·86	1·11	Elec. Dpt. & Bootle Crp.	17,978,718	1 08
Manchester ...	750,000	June, 1901	79·49	4	8½	1,485.612	120,772,368	13.759,071	611,881	392.504	64	219,377	14·77	72,781	26.903	+119	69.693	50,000	10 52	6·85	1·20	Elec. Dpt.	16,815,764	1·49
Nelson	36,000	Feb., 1903	2·74	4	0	30,493	1.420.759	171,132	4,655	3,563	77	1,092	3 58	781	232	+79	nil	nil	6 47	5·00	·78	Elec. Dpt.	170.611	2·00
Newc'stle-on-Tyne	257.000	Dec., 1901	23·36	4	8½	1,054,493	39,715,120	4.059,907	184,170	120,700	66	63,470	6·02	28 896	22 638	+11,936	nil	nil	10 68	7·14	1·09	Own wks.	7,757.885	·36
Newport	76,000	April, 1903	8·50	4	8½	164 219	4,473,411	635,000	23.653	15.533	66	8 120	4·95	4,360	3,360	+400	nil	nil	8·63	5 87	1·22	Elec. Dpt.	641,860	1·50
Nottingham ...	240,000	Jan., 1901	16·25	4	8½	559.838	27,876.889	2.512,000	128,202	71.259	56	56,943	10·17	15,333	15,128	+26,482	13,482	13,000	12·07	6 81	1·09	Elec. Dpt.	3.768 601	1·25
Oldham	100,000	Dec., 1900	17·93	4	8½	432,188	12,968,880	1.420,455	60,413	43.286	72	17,127	3 96	15,324	9,629	—7.826	nil	nil	10·01	7·31	1·10	Elec. Dpt.	2,177,309	1·50
Portsmouth ...	198,000	Sept., 1901	14·50	4	7¾	634,406	18,204.426	1,828,193	92.917	43,427	47	49,490	7 80	18.343	15,119	+16.028	16,028	nil	11·46	5·70	1·15	Own wks.	2.695,605	·55
Rochdale	86,000	May, 1902	3·96	4	8½	83,386	1,156,300	194,490	6.981	6,761	97	220	·26	2.851	1,406	—4,037	nil	nil	8·42	8·34	1·42	Elec. Dpt.	393.180	1·47
Rotherham ...	58,000	Jan., 1903	8·33	4	8½	105,762	4,914.479	525 840	21,341	15.602	73	5,739	5 42	2.088	1,261	+2,390	2,407	nil	9 57	7 12	1·02	Elec. Dpt.	806,291	1·50
Salford	300,000	Oct., 1901	32·50	4	8½	511,170	36,956,405	4,726,446	198,648	139,508	70	59,140	11 57	27,529	16,171	+15,440	3,440	12,000	10·08	7 09	1·29	Elec. Dpt. &Man.Cp.	6,102,524	1·89
Sheffield	425,000	1872	32·50	4	8½	988,316	61,450,993	5,768,231	233,829	156,403	67	77,426	7·83	30.722	19.394	+27.310	33.771	8.249	9 67	6·51	·91	Own wks.	9.460,618	·48
Southampton ...	107.800	July, 1898	9·72	4	8½	198,621	9,890,952	1,144,350	53,501	36.640	68	16 861	8·49	5 935	4.720	+6,206	1.206	5.000	10 88	7·68	1·26	Elec. Dpt.	1,298.392	2·25
Southport ...	49,000	June, 1900	8·42	4	8½	118.364	3,837,208	431.019	17,646	10,986	62	6.660	5·63	3.803	3,198	—341	nil	nil	9 63	6 12	1·08	Elec. Dpt.	492,261	1·50
Stockport... ...	110,000	Aug., 1901	12·27	4	8½	140.276	3,170.854	606,476	19.074	12.914	68	6.160	4 39	4.196	1.334	+630	nil	nil	7·37	5·11	1·41	Elec. Dpt.	790,892	1 50
Sunderland ...	158.900	June. 1900	10·92	4	8½	277,240	14,848.958	1.433,463	62.669	36,517	58	26,152	9·43	8,241	8,330	+9,581	5 567	4.014	10·46	6·11	1·01	Elec. Dpt.	1.562.748	1·87
Wallasey... ...	56,500	Mar., 1902	8·48	4	8½	127.949	6,564,493	757,688	35.873	24.980	70	10,893	8·51	4.064	1.618	+5.211	4 500	2.650	11 17	7·91	1·29	Elec. Dpt.	1,243,340	1·63
Warrington ...	80,000	April, 1902	6·42	4	8½	94,563	3,940,305	419,036	16,264	12,012	74	4,252	4·50	3,024	2,011	—783	nil	nil	9·15	6·88	·97	Elec. Dpt.	496,268	1·90
Wolverhampton.	94,200	Mar,, 1902	7·33	3	6	183,840	4.555,435	507,527	23,591	14,911	63	8,680	4·72	5,278	2.293	+1.109	3,475	nil	10·97	7·05	1·22	Elec. Dpt.	773,208	1·66
Yarmouth ...	35,000	June, 1902	3·59	3	6	44,149	1,611,699	222,350	7,876	5,939	75	1,937	4·39	1,570	582	—215	nil	nil	8·33	6·41	1·15	Elec. Dpt.	172,939	2·50

* Includes Repayment Charges.

MINERAL ROCK ASPHALTE.

What it is, and How Manufactured. Rise and Development of a Great Industry. Mineral Rock Asphalte as a Sanitary Paving for Public Buildings. Its Use in the Main Streets of London. Lithofalt, the New Cheap Paving Invented by Mr. Blake.

It is always interesting and pleasurable to trace the initiation, progress, and development of a great industry. It is interesting, because such history necessarily involves facility in selecting workable material, and accuracy in adjusting effective and durable processes of manufacture. It is pleasurable, because its development appropriates that mental and manual agility which elevates the craftsman above the unskilled, and because it finds employment for numbers of those healthy, honest, and strenuous workers—the hewers of wood and drawers of water—to whose monotonous, but necessary, labour we are all indebted, every day of our lives. Although there can be no gainsaying the truism that judicious advertisement is invariably a leading factor in the rise of any industrial undertaking, still it is equally true that merit alone ensures permanent success.

The introduction of such a material as asphalte may be said to have created an era in sanitary road-paving. Now, just as the introduction of anything untoward tends to deterioration, by dragging after it something even worse than itself, so the introduction of a good article works an evolution by inciting thinkers to add to and improve upon its efficiency. To this cause we owe Mineral Rock Asphalte.

Where It Comes From.

It may reasonably be asked, What is this substance, and does it in any way differ from other asphaltes? Mineral Rock Asphalte is a natural product, a pure limestone, naturally impregnated with mineral bitumen. The rock, when mined or quarried, is of a chocolate colour, fine in grain, evenly impregnated with bitumen, which varies from about six to twenty per cent. It is usually found in seams or layers from six to ten feet in thickness, like coal, and is mined in a similar manner. The principal supplies are taken from the Bassin de Seyssel, Haute Savoie; Switzerland; France; Limmer, in Hanover; and Ragusa, in Sicily.

Manufacture from the Raw Rock.

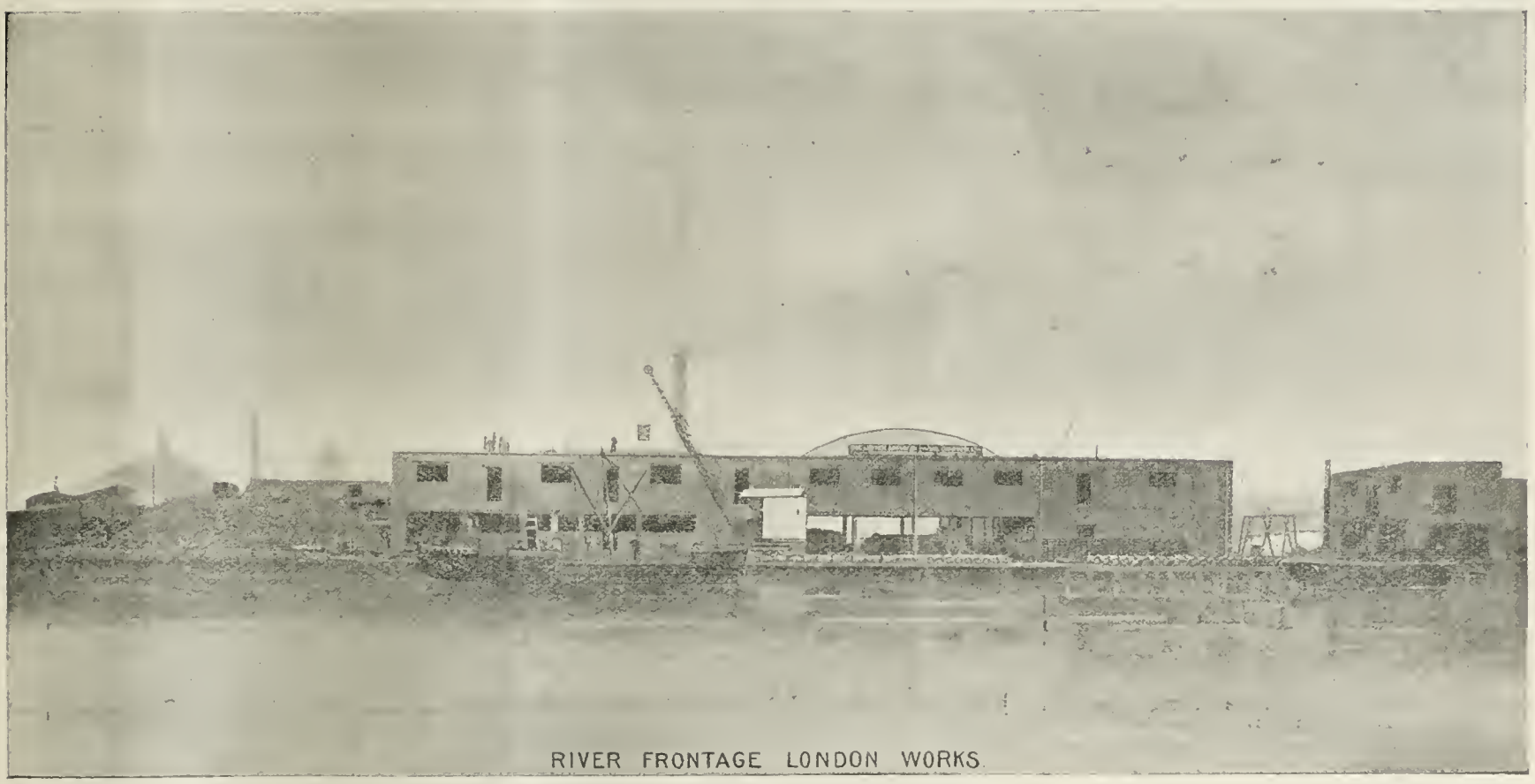
The process of manufacture into a mastic or semi-liquid state is as follows:—The pieces of raw rock, weighing a quarter of a hundredweight to half a hundredweight each, are placed in an asphalte crusher, where they are broken to the size of walnuts. After passing through the crusher, the asphalte is carried up by elevators to the disintegrators, which run at a speed of 1,800 revolutions per minute, and is ground to a very fine powder. This powder is then put into specially-made cauldrons, and gently cooked and worked by agitators, with certain proportions of refined bitumen (added as a flux), and when heated to a temperature of about 400deg. Fahr., a mixture of fine Bridport grit is added (in making mastic asphalte for roofing and flooring), and thoroughly incorporated with the asphalte by the rotary working of the agitators. It is then turned out into iron moulds, and made into mastic blocks, weighing half a hundredweight each. These blocks are broken up into pieces on the site where the asphalte is to be laid, and put into small portable cauldrons with just sufficient bitumen, as flux, and, when properly heated, the asphalte mastic is ready to be spread over the cement concrete surface to the thickness required (in two coats with broken joints), and the surface, whilst hot, is rubbed with fine silver-sand, by means of wooden hand-floats, to give an even surface and uniform appearance.

A Big Reservoir.

During the last half-century, the various purposes to which Mineral Rock Asphalte have been put are very numerous, and the pre-eminent position of this sanitary material to-day is largely due to its being increasingly specified and adopted by all the principal architects, engineers, and others for covering the roofs, floors, &c., of our principal public buildings, amongst which we may mention the New War Office, Admiralty Buildings, New Public Offices, Westminster; Victoria and Albert Museum, New Sessions House, the reservoir of the New River Company at Kempton (where it is being utilised to the extent of 35,000 yards super), Old Bailey, Clifton, and Menai Suspension Bridges, &c. Asphalte is also largely used for military and naval barracks, fortifications and powder magazines, quays, barns, granaries, drill grounds, school grounds, &c.

Prevents Damp and Vermin.

It would appear to be highly desirable that in all building operations it should be made compulsory to have the horizontal walls and footings covered with half-inch layers of this material to prevent any possibility of dampness rising up the walls, and especially in cellars and basements, where a volume of water presents itself. Basement floors should be covered at the same level as the horizontal damp courses, and connected therewith inside, and in cases (which often occur) the asphalte should be carried up vertically outside the walls from the horizontal damp course up to the ground level. By this means, both building and basement are made perfectly dry and watertight, which must obviate much discomfort and serious disease to those inhabiting such buildings, and prevent much rot and decay of property. In addition, it is vermin-proof. Rats, mice, and other vermin cannot possibly penetrate it. Further, it is specified by the leading fire-insurance companies as one of the materials to make a roof fireproof, because it is absolutely uninflammable, being impenetrable by the air, which, of course, should set at rest all doubts on the subject.



RIVER FRONTAGE LONDON WORKS

Already Outlived Prejudice.

During the last thirty years, compressed Mineral Rock Asphalte has stood the severe test of enormously-increasing traffic in the principal streets of the City of London, the metropolitan districts, and the provincial cities and towns of the United Kingdom, and has proved to be the most satisfactory paving that can be laid. It is impervious to moisture, and non-absorbent, and, being jointless, nothing can get into crevices and decay. It has a smooth and even surface, is durable and economical, quickly laid, and easily repaired. Without doubt it is the sanitary pavement for the coming motor traffic.

The Manufacturers.

The manufacturers who introduced and secured the necessary rights in Mineral

Rock Asphalte formed themselves, some thirty-three years ago, into the Limmer Asphalte Paving Company, Limited, with Mr. H. D. Blake, M.R.S.I., as managing director. Mr. Blake has had a unique practical experience in regard to the commercial development of asphalte as a paving material, both in England and in France

LAYING MASTIC ASPHALTE, CLIFTON SUSPENSION BRIDGE.

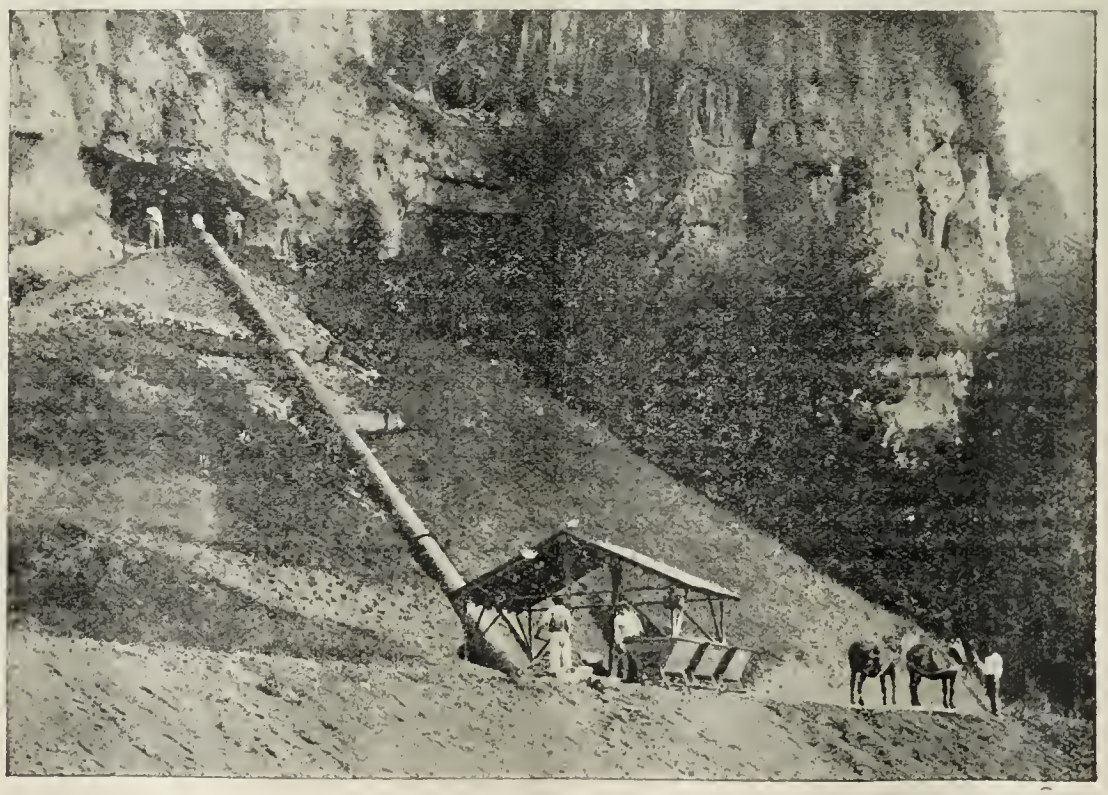
(in which latter country it was first so used). Under so expert a leadership, and possessing, as it did, a material of unrivalled merit as a paving, the prospects of the company were, from the first, highly favourable. However, the realisation of the advantages of certain improvements offered by inventors, the prompt acquisition and utilisation of these, and the efforts that were made to secure and retain the services of the most skilled workmen, brought the company to the front with a greater rapidity than even its most sanguine supporters had anticipated. The increased business necessitated greatly extended premises, and much additional machinery.

Extended Premises.

The present premises of the Limmer Asphalte Paving Company are at Blackwall, situated at the mouth of the Lea, just within the confines of the administrative County of London. They have a river frontage of 480ft., with every facility for vessels to load or unload directly alongside; and the road (Orchard Place) frontage extends to 450ft. They cover an area of about 2½ acres. Formerly the company was the lessee of only a portion of the property, but some few years ago it purchased the freehold of the whole, and decided to make additions extensive enough to enable it to cope with its increasing business. Certain of the old buildings were demolished, and new and substantial factories, workshops, stables, offices, and stores, as well as a new wharf wall and quay for landing and shipping material, were erected. The main factory—which provides for crushing mills, grinding mills, powder floors, boilers, roasters, grit stores, and other essentials—is of two floors, each having an area of about 15,000ft. super. The substratum of the site, owing to its proximity to the river, was of such a character as to necessitate concrete foundations being carried down to a considerable depth, especially next the quay. The whole of the buildings are built of stock bricks in cement. The floors are of fireproof construction, and are supported by steel stanchions. The steel joists used are embedded in concrete, and are covered with the company's Mineral Rock Mastic Asphalte. The roofs are treated in a similar manner, being laid flat, with openings in them to allow materials to be lowered, as desired, to their places on the respective floors.

Lithofalt.

The new stables and loose boxes are lined inside with salt-glazed bricks. The company's new patent paving "Lithofalt," which was invented by Mr. Blake, and for which a great future is predicted, is used for paving the stables. It appears to be a material which, for cost and suitability, compares favourably with the blue brick and other paving hitherto generally used for this kind of work. A roof 22ft. 6in. high has been thrown over the yard (53ft. by 80ft.) between the buildings, so that the vans and other vehicles can be loaded in the dry. There are carpenters', engineers', and smiths' shops, and other buildings in suitable positions for the proper carrying out of the works. A manager's residence and horsekeeper's cottage are also provided and abut upon the public roadway. The raw rock is brought to the wharf in specially chartered vessels, which come alongside the quay, and are unloaded in a very short time by means of a powerful travelling-crane, which can run to any part of the wharf, pick up the material from any part of the vessels, and deliver either on to the roof of the buildings or into trucks, which are run on a specially-constructed steel overhead gantry to different parts of the works for stacking or immediate use. A new and powerful patent crusher is placed in a sunk basement for the crushing of the rock asphalte, and other disintegrating and mixing machines are placed in proper sequence, so that no ground is travelled over twice before the rock, reduced to a fine powder, reaches the boilers and roasters, where it is finished ready for use upon roadways, pavements, floors, water reservoirs, or any other purpose requiring asphalte.



MINING MINERAL ROCK ASPHALTE.

Municipal Current.

The machinery in the new works is driven by electric motors of 120 horse-power, and the premises throughout are lighted by electricity. The electric current is taken direct from the mains of the Poplar Borough Council, and thus, with the old works, the company has the whole of its machinery duplicated.

In addition to the present large premises in London, the company has works at the mines, Bassin de Seyssel, also at Leeds, Glasgow, Leith, and Belfast. At each of these places it has a responsible practical representative, and all orders are carried out by the company's own skilled workmen, thus ensuring uniformity of material and workmanship.

A Boon to Poor Districts.

Although Mineral Rock Asphalte has proved itself unrivalled as a sanitary paving, yet in large areas in London and the provinces, among the poorer districts, and even at our very doors, where narrow streets, courts, and alleys are practically the playgrounds, and, especially during the day, the only breathing space of the women and children, the authorities sometimes consider that its use would be too expensive. In order to meet this objection, the company introduced the new patent material mentioned above, registered and known as "Lithofalt," which is now largely used in London and the provinces, and is equally suitable for paving back streets of light traffic, court-yards and alleys, at a reduction in cost, and which, though not equal to asphalte for carriageways for heavy traffic, shows practically all its other advantages. It is also useful in making foundations for machinery, as by its use vibration is greatly reduced.

The London offices of the Limmer Asphalte Paving Company, Limited, are at 2, Moorgate Street, E.C.

IVYBRIDGE SEWAGE WORKS.

An Important and Interesting Ceremony Sets Working Ivybridge's Newly-acquired Health Asset. A Method of Sanitation Which Combines Efficiency and Economy. Advantages of the Septic Tank Company's Automatic Alternating Gear.

ON Wednesday, the 29th ult., Mr. John Allen, J.P., Chairman of the Ivybridge Urban District Council, formally opened the above works, which constitute a thoroughly up-to-date and efficient method of sewage disposal. The occasion was made a general holiday in the district; the streets were decorated, and the school children and their teachers marched in procession to witness the ceremony. Mr. Arthur J. Martin, A.M.I.C.E., gave a lucid description of the works, and explained that of the two ways of treating sewage—fighting against Nature, and working with her by means of the bacteriological system—the District Council had chosen the latter, which was the right one, and would, he felt sure, prove in every way beneficial to the town

The picturesque little Devon town, whose enlightened Council has taken this important step of providing the most approved modern method of sanitation, is situated at the foot of the southern slopes of Dartmoor. It is on the Great Western Railway, and about eleven miles east of Plymouth.

Ivybridge is fully provided with sewers, and for many years past the sewage has been utilised for the irrigation of some meadows to the south-west of the town. The Council, having recently received notice from the owners of the land that they required it for other purposes, found itself under the necessity of making other provision for dealing with the sewage.

In addition to the purification works, which lie to the south-west of the town, under the shadow of Westover Wood, it was necessary to lay down intercepting and outfall sewers to bring the sewage to them. The amount of the contract was £2,850 16s. 1d., and a further sum of between one and two hundred pounds has been spent on additional sewers, which were put in during the execution of the work to replace certain of the existing sewers which were found to be defective. The whole of the sewage reaches the outfall by gravitation.

The new sewers, which are all in the western part of the town, are laid with stoneware pipes, fitted with the double-seal joint recently introduced. This important engineering invention is known as "Freeman's Patent Double-Seal Pipe-Joint," and is the property of Messrs. Freeman Hines, Ltd., 2, Victoria Street, Westminster. Had ordinary bituministic joints been employed in this work, the slightest subsidence or shifting of the boulders would almost inevitably have resulted in a leakage. The Freeman Double-Seal Pipe-Joint entirely obviates any such risk, and that without involving large expenditure in the surrounding of the duct with a mass of concrete. Except where purely mechanical reasons make the use of concrete unavoidable, these pipes lie well without additional support. A remarkable feature of this part of the work was the nature of the ground cut through for the main sewers, which in many places was little more than a nest of granite boulders, running up to a ton or more in weight. These greatly increased the difficulty of the work, but, by way of compensation, yielded a supply of excellent material for use in the concrete of which the purification works are built.

These works, which are designed to serve 2,000 people, and to deal with sewage and storm water up to a total of 120,000 gallons per day, consist of two grit chambers, two septic tanks, and eight aërating bacterial filters, with the smaller chambers necessary for their convenient and effective operation. The tanks, which are covered with concrete arches and a layer of soil, are each 70ft. long by 12ft. wide, and 7ft. in average depth below the springing of the roof arches. They are kept constantly full of sewage, which flows through them continuously, the crude sewage entering and the clear effluent being drawn off by special cast-iron inlet and outlet pipes well below the water level.

In order to do away with the need for emptying the tanks, provision is made for forcing out the mineralised residuum resulting from the destruction of the sewage solids by means of the pressure of the sewage in them.

The filters, which are on the contact system, are each 28ft. long by 22ft. wide, and are filled to a depth of 4ft. with hard clinker, broken to gauge, and freed of dust, the particles of this material forming a resting place for the nitrifying bacteria by which the purification of the liquid is completed. The eight filters are arranged in two groups of four, the working of each group being controlled by the automatic alternating gear of the Septic Tank Company, Ltd., of 2, Victoria Street, Westminster. By this each filter in turn is filled, discharged, and finally left to drain and aërate. The gear is of the company's most recent type, by which the filling of the filters is hastened and the longest time possible allowed for rest and aëration, conditions which are found greatly to enhance their efficiency.

A VIEW OF THE NEW WORKS.

The labour required consists of little more than emptying the grit chambers as often as may be found necessary, cleaning and oiling the alternating gear, and keeping the filter surfaces free from weeds. The filtered effluent is utilised for the irrigation of about two and a half acres of meadow land, and a special plot has been set apart for the reception of the surplus storm-water.

It is pleasant to record that the work has been carried out to the entire satisfaction of the Ivybridge District Council by a local contractor, Mr. G. B. Andrews, of Ivybridge, assisted by his sons. It has been supervised by Mr. H. V. Smith, and subsequently by Mr. Anthony Etheridge, as clerk of works.

Another satisfactory feature is that the first cost of the works will be practically the only cost, no chemicals nor motive power being required, and the greater part of the attention which would otherwise be necessary being done away with by the automatic system of working adopted. The ratepayers of Ivybridge appear to have acquired an important asset at a minimum expenditure.

One Gallon covers from 60 to 70 square yards on a prepared surface.

"SANALENE"

The Latest Production.

A PERFECT ENAMEL PAINT.

Flows Freely, Hard Wearing, Easily Washed and Polished.

"SANALENE"

BLUE LABEL

For Inside Use.

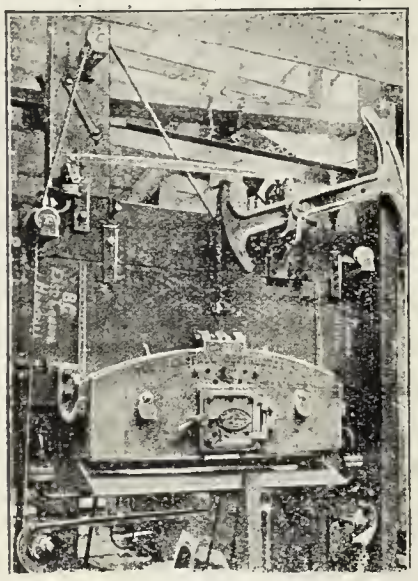
FOR PRACTICAL WORK
BY PRACTICAL USERS.
Supplied in White or Colours, as desired.

For Colour List and Full Particulars, apply to

ASPINALL'S ENAMEL, Ltd.,
NEW CROSS, LONDON, S.E.

RED LABEL

For Outside Use.



Portion of Plant for Bloemfontein, South Africa.

Silver Medals Sanitary Institute of Great Britain, 1896, 1902 and 1903.

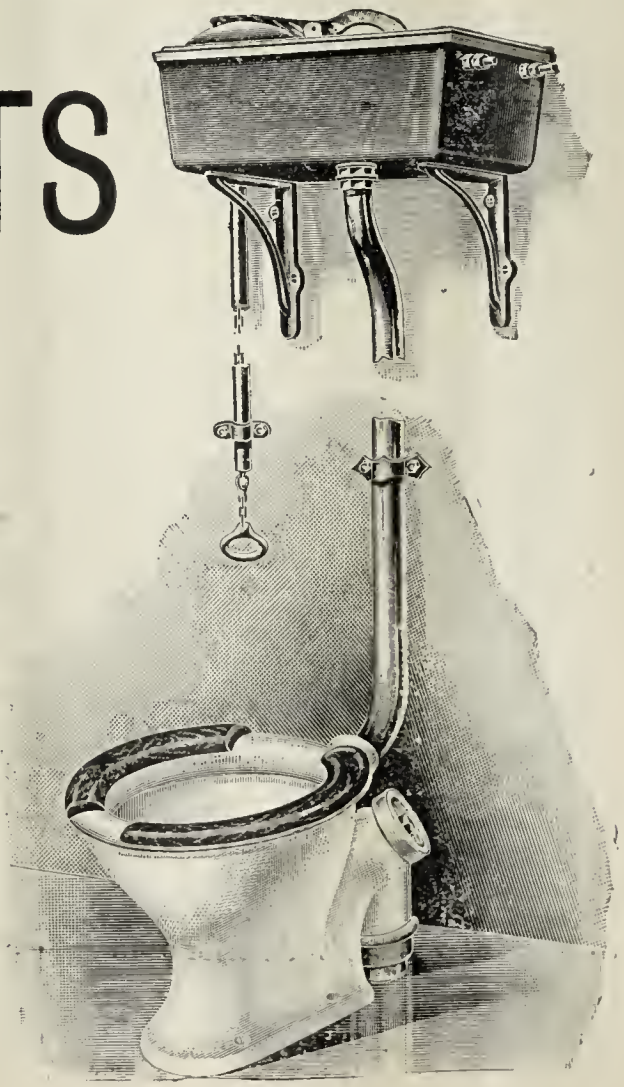
Gold Medal Brussels Exhibition, 1897.

THE
HORSFALL DESTRUCTOR Co., Ld.
LEEDS,
AND
19, OLD QUEEN STREET, WESTMINSTER, S.W.

Telegrams: {"DESTRUCTOR, LEEDS" "DESTRUCTOR, LONDON"} A B C and Lieber's Standard Codes used.

Telephone: {LEEDS No. 2006 Central. LONDON No. 263 Victoria (G.P.O.)}

DOULTON'S
SPECIAL
SCHOOL CLOSETS
FOR
INFANTS AND CHILDREN.



These Closets are only 13½in. high, and are specially suitable for children. The pan and trap is in one piece, with brass inspection cap, and cleanses well with a 2-gallon cistern. It is made in two patterns, one with fixed side pieces, the other with lugs to take a hinged seat. Also made with side outlet.

DOULTON'S SPECIAL LIST OF SANITARY FITTINGS SUITABLE FOR SCHOOLS SENT ON APPLICATION.

Every description of High-class Sanitary Fittings for Mansions, Hotels, Clubs, Hospitals, Schools, and Public Buildings of all kinds to be seen in action at Showrooms—

ALBERT EMBANKMENT, LAMBETH, LONDON, S.E.

THE SURVEYOR AND CONTRACTOR.

Schemes in Progress and Suggested. Tenders Open. New Inventions for Local Government Enterprises.

LONDON, EDINBURGH AND GLASGOW ASSURANCE COMPANY, LTD.

THE annual report of the above company for the year ended 31st December, 1904, states that the annual revenue of the company now exceeds half a million sterling. The total revenue for the year, including interest (but exclusive of consideration for annuities granted), was £518,797 15s. 3d., as compared with £487,882 2s. 10d. in the previous year, showing an increase of £30,915 12s. 5d. The assurance funds were increased during the year by £91,799, and now amount to £650,965. The income from interest, dividends, and rents for the year amounted to £22,026, being an increase over 1903 of £3,769. The interest on the investments of the company as at the 31st December, 1904, averaged a rate of £3 14s. 2d. per cent. per annum, after making provision for necessary redemptions.

The amount standing to the credit of the profit and loss account of £20,370 compares with £17,891 in the previous year. After payment of interest on debenture stock, preference shares and other charges, there is an available balance of £10,136, which has been dealt with in accordance with the established rule of the company. The nett balance to the credit of profit and loss of £10,136 compares with £7,755 in 1903. During the year 3,490 proposals were received for the assurance of £355,685. The number of policies issued was 2,925, assuring the sum of £294,885, after deducting re-assurances, yielding a new annual premium income of £14,245 9s. 5d. nett, and single premiums of £59 18s. 0d. nett. One hundred and forty-four proposals were declined, and the remainiug proposals were either proceeded with or were in course of completion at the close of the year.

The premium income of the participating branch for the year (less re-assurances) amounted to £63,728 13s. 1d., being an increase of £4,165 13s. 7d. The claims for the year, 215 in number, amounted to £19,752 11s. 11d., including endowment assurances matured. The participating life fund amounted on 31st December last to £264,521 5s. 6d., being an increase of £33,948 6s. 11d. In the non-participating branch the premium income for the year amounted to £411,000 17s. 4d., compared with £389,951 1s. 5d. for the previous year, showing an increase of £21,049 15s. 11d. over the premium income of 1903. The claims and grants numbered 20,231, and amounted to £165,377 13s. 9d., including endowments and endowment assurances matured. Six annuities were terminated by death, relieving the company of an annual payment of £245 14s. 4d. The non-participating life fund amounted, on December 31st last, to £372,739 11s. 9d., being an increase of £56,897 16s. 1d.

In the accident branch the new policies issued were 2,143 in number, yielding a new annual premium of £6,652 18s. 3d. The premium income amounted to £21,771 12s. 10d., being an increase of £1,917 19s. 2d. The claims were 983 in number, and amounted to £9,360 17s. 4d. The accident insurance fund amounted to £11,000 at the close of the year, being an increase of £1,000. As regards the health branch, the premium income was £127 3s. 1d., and the claims were £254 10s. 2d. The health fund amounted to £2,703 17s. 9d. at the close of the year. No business has been transacted in this department for many years.

The accident claims of the year (1904) include £500 paid to the widow of Mr. Emlyn Jones, who was murdered on the 11th September last, and £500 paid to Mr. Elijah Barnbrook, foreman at the Eagle Iron and Steel Company's works at West Bromwich, who had the misfortune to have his foot accidentally cut off while walking through the works. As a further illustration of the value of the company's "omniform" accident and disease policy over the old form of insurance, we may mention that during the year the company paid ten claims where policy-holders were totally disabled by pleurisy; 2 claims for scarlet fever; 2 for enteric fever; 4 for pneumonia; 4 for erysipelas; 2 for appendicitis; 3 for ptomaine poisoning; 5 for carbuncle; 1 each for epilepsy and apoplexy; and paid £60 for a case of typhoid fever.

The total claims and grants paid during the year amounted to £194,745 13s. 2d., which makes the total amount of claims and grants paid by the company £2,381,604 3s. 1d.

PADDINGTON ELECTRICAL EXHIBITION.

Notable Firm's Exhibits.

TO-MORROW (Saturday) the Paddington Electricity Exhibition, organised by the Metropolitan Electric Supply Company, and held at the Queen's Road Baths, Bayswater, London, W., will close its doors after a busy fortnight's work. Many of the visitors have been local councillors, drawn there with a view to extending their ideas of the modern developments of electricity for lighting, heating, power, and for other purposes. Though the pen is powerless to pass on the many valuable lessons to be gained from this exhibition, we brought out a few points of interest last week, so as to draw a larger public attention to the recent rapid growth of electric lighting in Great Britain—a growth which has received increased stimulus from the great strides which gas lighting has made, and which threaten, though probably only temporarily, to regain ground which the more subtle illuminant dufing the past twelve of fifteen years has taken from it.

One firm's name and exhibits were not touched upon in our notice—those of Messrs. Ivor B. Blaiberg and Company, electrical engineers and art metal workers, 7, Argyll Place, Regent Street, London. Of only secondary importance to the kind of light used are the fittings; in fact, many would say that they are of equal importance. Everyone knows what fairylike changes can be made in the use and application of either gas or electricity by employing artistic fittings. They are the clothing of light, as choice and apt words are the clothing of thought. It would be impossible to mention within the limits of our space even the general names of all the exhibits, such as dressing-table fittings, ceiling fittings, lantern fittings, brackets of all kinds, shades and holders, pendants, &c. A speciality of the firm is the "Ibray" electric incandescent lamp, which is claimed to be the best on the market, and has the longest life at the lowest cost. The 100 volt 816-c.p. lamps are 9s. 6d. per dozen, and the 1,200 volt 816-c.p. 10s. 9d. per dozen. All the work of this firm is hand-made, and of the highest order, and the fittings are furnished off in antique iron, oxidized silver and copper, and antique brass and copper. It makes a speciality of designing fittings to suit special decorations or furniture. The firm also has a department dealing with wooden electric light fittings.

Tenders Wanted.

Architectural Competition. Rochester Corporation.
May 15.—Designs for the erection of a technical institute; three premiums of 50, 20, and 10 guineas. Mr. Apsley Kennette, Town Clerk.

Artisans' Dwellings, Cardiff Corporation.
April 12.—For the erection of above at Wellington Street, Canton. Mr. J. L. Wheatley, Town Clerk, Cardiff.

Bacteria Beds, Hornsey Town Council.
For the construction of additional bacteria beds, sedimentation tanks, &c., at their sewage farm, Coppett's Road, Muswell Hill. Mr. F. D. Askey, Town Clerk, Southwood Lane, Highgate, N.

Bedsteads, Newport (Mon.) Lunacy Visiting Committee.
April 18.—For the supply and delivery of from 300 to 400 Gale's patent Lawson Tait bedsteads. Mr. Albert A. Newman, Town Clerk.

Bookbinding, Wandsworth Borough Council.
April 19.—For bookbinding at the public libraries in the borough to March 31, 1906, 1907, or 1908, at the option of the Council. Mr. Henry George Hills, Town Clerk.

Books, Grimsby Public Library Committee.
April 12.—For the supply of books to the public library for one year, commencing April, 1905. Mr. D. H. Geldie, Borough Librarian.

Building, East Sussex County Council.
April 17.—For the erection of the proposed new offices in Fisher Street, Lewes. Mr. Fred. J. Wood, County Surveyor.

Building, Aston-in-Makerfield U.D.C.
April 10.—For the erection of new administrative building, scarlet fever and diphtheria pavilions, laundry, disinfector, stables, and mortuary buildings, &c. The Clerk to the Council.

Building Sites, Stepney Borough Council.
May 1.—Building sites of not less than 16,500ft. super within the borough of Stepney, suitable for the erection of a council chamber and municipal offices. Mr. George W. Clarke, Town Clerk, Municipal Offices, 15, Great Alie Street, Whitechapel, E.

"I firmly believe that if the children were well fed our workhouses, gaols, and asylums would soon be empty."
—Sir JOHN GORST, M.P.

ONE CUP of Delicious

Plasmon Cocoa

Equals in nutriment ½-lb. Beef or Ten Cups of Ordinary Cocoa.
And is Absolutely Free from Chemicals.

Aids Digestion.
Braces the Nerves.
Invigorates the System.
In Tins, 5d., 9d., 1s. 4d., and 2s. 6d.

Building, North Wales Asylum Committee.
April 15.—For the erection of two new blocks of buildings, together with certain alterations and additions to the existing building at the asylum, Denbigh.

Building, Dalton-in-Furness U.D.C.
April 24.—For the erection of a manager's house, weigh office, and other buildings at their Askam-in-Furness gasworks. Mr. William Richardson, Architect and Surveyor.

Building, Hemsworth Guardians.
April 11.—For certain alterations and additions to the workhouse. Mr. John Scholefield, Clerk to the Guardians.

Cartage, &c., Leighton Buzzard U.D.C.
April 12.—For street watering, flushing sewers, and other cartage work, covering a period of 11 months from the 1st May, 1905, to 31st March, 1906. Mr. G. L. B. Calcott, 31, High Street.

Cast-Iron Water Mains, Llantrisant R.D.C.
April 18.—For providing and laying about 2,300 lineal yards of 3-inch diameter cast-iron water mains between Llantrisant and Beddau, together with all necessary sluice, fire, and air valves, &c. Mr. Gomer S. Morgan, Engineer's Office, School Street, Pontychun.

Causeway, Leith Harbour Commissioners.
April 11.—For laying above on the quays of the harbour and docks. Mr. Peter Whyte, Superintendent, Dock Offices, Leith.

Coal, Luton Town Council.
April 18.—For the supply and delivery of above at the electricity works. Mr. George Sell, Town Clerk.

Coal, Wallasey U.D.C.
April 20.—For the supply of about 5,000 tons of round cannel, and about 29,000 tons of screened gas coal. Mr. H. W. Cook, Public Offices, Egremont.

Coal, North Walsham U.D.C.
April 14.—For the supply of Linby hard steam coal at per ton per truck, delivered as required at the Council's waterworks station, during 12 months from May 1st, 1905. Mr. J. S. Empson, Clerk to the Council.

Coal, Kent County Asylums Committee.
April 20. For the supply of 3,400 tons of steam coal, 1,200 tons of household coal, 1,025 tons of gas coal, and 85 tons of baker's coal, for the Asylums at Barming Heath and Chartham. Mr. Francis R. Howlett, Clerk to the Committee, 9, King Street, Maidstone.

Coal, &c., Alloa Town Council.
April 18.—For the supply of splint coal, coking coal, nuts, washed dross, and lime, at a rate per ton; benzole, at a rate per gallon, in contractor's barrels; also tar and ammoniacal liquor, at a rate per gallon. Mr. James W. Dickie, Town Chamberlain.

Coke, Hastings Corporation.
April 17.—For the supply and delivery of about 400 tons of unbroken and 120 tons of broken gasworks coke, to be delivered to Hastings railway station, within the ensuing 12 months, in such quantities as may be required by the borough engineer. Mr. Ben. F. Meadows, Town Clerk.

Condenser, Aberdeen Corporation.
April 19. For the supply of one-surface condenser, with air pump, oil separator, &c., for the electricity department. Mr. J. A. Bell, City Electrical Engineer.

Designs for Technical Institute, Rochester Corporation.
May 15. Three premiums are offered for above, viz., 50, 20, and 10 guineas. Mr. Apsley Kennette, Town Clerk.

Designs for Libraries, Cardiff Corporation.
June 17.—From architects who have been in practice not less than six months as principals in Cardiff, for branch libraries to be erected at Canton and Cathays.

Designs for Libraries, King's Norton U.D.C.
April 26. Architects resident in or practising within the city of Birmingham may on certain conditions enter into above architectural competition for a library to be erected on the site in Church Hill, King's Norton. Mr. Edwin Docker, Clerk to the Council, 10, Newhall Street, Birmingham.

Destructor and Flag Plant, Sydney (N.S.W.), Municipal Council.
May 30.—For the supply and erection of a six-cell refuse destructor, and for a flag-making plant, at Moore Park, Sydney. See advt. in this issue. Mr. Thomas H. Nesbitt, Town Clerk.

Drain Pipes, St. Austell R.D.C.
April 12. For the supply of socket drain pipes, in such quantities and at such times as may be required by the surveyors. Mr. John Stevens, Clerk to the Council.

Drapery, Swansea Guardians.
April 12.—For supplying workhouse and cottage homes with drapery, clothing, &c., for six months. Mr. L. Jenkins, Clerk to the Guardians.

Electric Wiring, Erith U.D.C.
April 17.—For the wiring of their car depot and workshops. The Clerk to the Council.

Electric Generating Plant, Clyde Navigation Trustees.
April 17.—For electric power generating and lighting plant for Clydebank Dock. The Manager.

Electric Cables, Nuneaton Electricity Committee.
April 10.—For the supply of cables and joint boxes. The Chairman, Electricity Works, Coton Road.

Electrical Plant, Cardiff Corporation.
April 17.—Extra high-tension three-phase main switchboard for power station; switchboard for sub-station; motor generators; rotary converters, &c. Mr. J. L. Wheatley, Town Clerk.

Electrical, &c., Apparatus, Plymouth Education Authority.
April 26.—For the supply of apparatus for teaching purposes for the new mechanical and electrical engineering laboratories. Mr. E. Chandler Cook, 18, Princess Square.

Emergency Staircase, East Ham Education Committee.
May 11. For iron emergency staircase at New Beckton School. See advt. in this issue. Mr. H. C. Padgett, Secretary, Education Office, E.

Extension of Sewer, &c., Gelligaer R.D.C.
April 10.—For work required to be done in the laying of 6in. stoneware pipes, &c., for the extension of a sewer at the village of Troedrhiwfuwch. Mr. Frank F. James, Clerk to the Council, 134, High Street, Merthyr Tydfil.

Extension of School, Aberdare U.D.C.
April 12.—For the erection of three additional class-rooms, &c., and carrying out alterations to Aman Infants' School, Aberaman. Mr. John Morris, Clerk to the Council.

Extension of Pier, Cork County Council.
April 15.—For the extension, enlargement, and improvement of Courtmacsherry pier, quay, and jetty. Mr. E. Callanan, Council House.

Extension of Sewer, Epsom R.D.C.
April 25.—For the carrying out of an extension (of about 350 yards in length) of the sewer in the main Sutton Road, Cheam. Mr. W. O. Reader, Clerk to the Council.

Furniture, Fulham Guardians.
April 20.—For the supply of furniture, linoleum, and blinds, for their new nurses' home, Fulham Palace Road, W. Mr. E. J. Mott, Clerk to the Guardians.

Furniture, Leeds Guardians.
April 19.—For the supply of 30 bed-room suites for the nurses' home, Union Infirmary, Beckett Street. Mr. James H. Ford, Poor Law Offices, South Parade.

Furnishing, Swansea Town Council.
April 11.—For the furnishing of the new police station, Orchard Street. Mr. J. Thomas, Town Clerk.

Gas Coal and Cannel, Edinburgh and Leith Corporations' Gas Commissioners.
April 10.—For the supply of above for delivery at their Granton Works over a period of 12 months or more. Mr. James M'G. Jack, 25, Waterloo Place, Edinburgh.

Granite, Chelmsford Guardians.
April 10.—For 100 tons of rough granite for breaking by casual paupers. Mr. W. W. Duffield, Clerk to the Guardians.

Heating, Boston Guardians.
April 15.—For heating by low pressure hot-water the infirmary buildings, part existing and part proposed to be erected. Mr. John M. Simpson, Clerk to the Guardians.

Hose for Fire Brigade, London County Council.
April 11.—For the supply and delivery of rubber-lined flax hose for the fire brigade, and for the supply of unlined flax hose for the brigade. Mr. G. L. Gomme, Clerk to the Council.

Iron and Steel, Sydney (N.S.W.) Public Works Office.
September 1.—For the manufacture, supply, and delivery in the State of New South Wales of all iron and steel required by the Government. The Agent-General's Office, 9, Victoria Street, London, S.W.

Jobbing Work, Glasgow Corporation.
April 18.—For masons', painters', plumbers', gasfitters', ironmongers' work, &c., during the year, from 1st June next till 31st May, 1906. Mr. John Bowers, Town Clerk.

Laundry Machinery, Boston Guardians.
April 15.—For laundry fittings, machinery, engine and boiler for the new workhouse laundry. Mr. John M. Simpson, Clerk to the Guardians.

Library, Southend-on-Sea Corporation.
April 27.—For the erection of a public library in Victoria Avenue. See advt. in this issue. Mr. William H. Snow, Town Clerk.

Library, Erith U.D.C.
April 17.—For the erection of a public library at Erith. Mr. Charles H. Fry, Bexley Road.

Loan, Windsor R.D.C.
April 10.—For the loan of £19,000, for sewerage works in the parish of Clewer Without, to be charged to the rates of that parish, repayable by equal instalments of principal and interest combined, spread over a period of 30 years. Mr. J. E. Gale, Clerk to the Council, 3, Sheet Street.

Loan, Farnham R.D.C.
April 12.—For £850, required in connection with the building of a bridge, to be repaid by 30 equal annual and 60 equal half-yearly instalments of principal, with interest on the balance remaining unpaid each half year. Mr. Ernest Crundwell, Clerk to the Council.

Loan, Truro City Council.
April 19.—For river purposes, on the rates and charges which the Council is authorised to mortgage by the Truro Harbour Order, 1903, the sum of £5,255, repayable by yearly instalments in 40 years. Mr. F. Parkin, Town Clerk.

Lodge, Abram U.D.C.
April 12.—For the erection of a caretaker's lodge house at their hospital in Park Lane. Mr. William Aspinall, Clerk to the Council.

Materials, &c., Radstock U.D.C.
April 12.—For the supply of about 1,350 yards cube of limestone block and 150 tons of limestone gravel; also alternatively for 1,500 tons of blue limestone, broken into cubes so as to pass through a 2½ ring. Mr. G. H. Gibson, Surveyor.

Materials and Cartage, Tenterden Corporation.
April 15.—For the supply of Cherbourg quartzite, basalt, or other approved material. Mr. J. Munn-Mace, Town Clerk.

Motors, Cardiff Corporation.
April 18.—For two road motors. Mr. J. L. Wheatley, Town Clerk.

Painting and Decorating, Glamorgan County Council.
April 14.—For internal work, as above, at the Abercynon Police Station. Mr. T. Mansel Franklen, Clerk to the Council.

Painting, &c., Berkhampstead U.D.C.
April 10.—For painting and redecorating the Town Hall buildings. Mr. W. J. Pickin, 174, High Street.

Painting and Papering, Whitby Guardians.
April 14.—For painting and papering a sitting room and bath room at the workhouse. Mr. W. Seaton Gray, Clerk to the Guardians, 38, Flowergate.

Painting, Rhondda U.D.C.
April 13.—For the painting of two pavilions and discharging block at the Fever Hospital, Ystrad-Rhondda. Mr. W. J. Jones, Engineer and Surveyor, Pentre.

Painting, Norwich Education Committee.
April 10. For painting externally various provided schools. Mr. C. J. Brown, Cathedral Offices, The Close.

Painting, &c., Halifax Corporation.
April 13. — For decorating and painting certain portions of the interior of the Town Hall. Mr. Keighley Walton, Town Clerk.

Painting, Bermondsey Guardians.
April 13.—For painting and other works to certain parts of the interior and the whole of the exterior of the buildings, including outbuildings, at their workhouse, Ladywell, S.E. Mr. E. Pitts Fenton, Guardians' Offices, 283, Tooley Street, S.E.

Painting, &c., Leeds Corporation.
April 14.—For painting and decorating at the following recreation grounds:—Armley and Oak Road; Hunslet Lake, Holbeck Moor, and Farnley; Bramley and Stanningley; Roundhay. The Town Clerk

Painting, Stafford Corporation.
April 17. For above at the Municipal Cottages, in Broad Eye, and Crooked Bridge Road. Mr. M. F. Blakiston, Town Clerk.

Paving, Hampstead Borough Council.
April 13.—For paving with Jarrah wood a portion of the High Road, Kilburn (area about 2,255 yards). Mr. Arthur P. Johnson, Town Clerk.

Piggeries, Southampton Guardians.
April 20. For the erection of a group of piggeries on the site of the workhouse infirmary at Shirley Warren. Mr. D. P. Gwillim, Clerk to the Guardians.

Pipes, Glasgow Corporation.
April 15.—For supplying 500 tons of cast-iron pipes 6in. and 4in. in diameter. Mr. John Bowers, Town Clerk.

Pipes, Edmonton U.D.C.
April 11. For the supply and delivery of stoneware pipes for six months ending September 30, 1905. Mr. W. Francis Payne, Clerk to the Council.

Plans for Dwellings, Norwich Corporation.
May 8.—The Housing Committee offer a premium of 20 guineas for the best set of above. Mr. Arthur E. Collins, City Engineer.

Provender, Whickham U.D.C.
April 12.—For supply of horse provender for half-year ending September 29, 1905. Mr. Thomas Lambert, Clerk to the Council.

Printing and Stationery, Surrey County Council.
April 13.—For the execution and supply of the above for the county. Mr. T. W. Weeding, Clerk to the Council.

Printing, Norfolk County Council.
For printing the County Council Year-book for 1905 6. Mr. G. C. Davies, Deputy Clerk to the Council, 11, Prince of Wales Road, Norwich.

Private Street Works, Cardiff Corporation.
April 13. — Separate tenders for forming and metalling the carriage-ways, and paving, kerbing, and channeling the footways. Mr. J. L. Wheatley, Town Clerk.

Pumping Works, &c., Bishops Stortford U.D.C.
May 8. —For supplying and fixing two Lancashire boilers, for supplying and fixing steam pumping engine and pumps, for supplying and fixing gas pumping engine and pumps, together with suction gas plant, complete. Mr. Thos. Swatheridge, Clerk of the Council.

Reservoir, Portadown and Banbridge Water Board.
April 17.—For the construction of a storage reservoir of about 75,000,000 gallons capacity at Foffanyreagh, county Down. Mr. William Wilson, Clerk to the Board.

Road Materials, Uckfield R.D.C.
April 12.—For the supply of unbroken hand-picked flints, &c., for the maintenance of the highways within the Council's district. Mr. F. Holman, Clerk to the Council, 86, High Street, Lewes.

Road Metal, Bradford Corporation.
April 15. —For the supply of about 20,000 tons of road metal for the macadamised roads within the city. Mr. Frederick Stevens, Town Clerk.

Road Materials, &c., Hoylake U.D.C.
April 12. —For the supply and delivery of kerbs, macadam, sewer pipes, horse provender, &c., for the period ending 31st March, 1906. See advt. in this issue. Mr. Roderick Williams, Clerk to the Council.

Road Material, Sutton Bridge U.D.C.
April 15. —For the supply of about 1,000 tons of various road materials. See advt. in this issue. Mr. Leopold C. Harvey, Clerk to the Council.

Road Materials, Kingsbridge R.D.C.
For the supply per year, for each of the next three years, of about 6,500 tons of various road materials. Mr. William Beer, Clerk to the Guardians.

Road Materials, Southborough U.D.C.
April 15.—For the supply of about 1,400 yards of hard Sevenoaks, Ightham, or other suitable stone, broken to pass 1¾in. ring; and for about 300 tons of Cherbourg quartzite, Rhenish basalt, or Norway granite, machine broken to 1¾in. to 2in. gauge. Mr. Philip Hanmer, Clerk to the Council.

Road Materials, Worsborough U.D.C.
April 15.—For the supply of 900 tons of rough dross, 250 tons of granite, and 250 tons of 2½in. blue rock. Mr. Levi Dyson, Chairman of the Council.

Road Materials, Uttoxeter R.D.C.
April 10.—For the supply of unbroken granite, slag, and limestone, and for the repair of the highways during the year ending March 31, 1906. Mr. F. S. Hawthorn, Clerk to the Council.

Road Metal, Tunbridge Wells Corporation.
April 11. —For the supply and delivery of about 1,000 tons of stone for road metalling purposes. Mr. W. H. Maxwell, Borough Engineer.

Road Material, Sutton Bridge U.D.C.
April 15. — For the supply of 390 tons 1¾in. XX granite, 130 tons 2¼in. X granite, 155 tons slag tailings, 40 tons granite chips, 21 tons Pearkirk sand for asphalte paths after tarring, 135 tons sea-shingle, 80 yards Wansford stone, and 80 tons of slag ballast. Mr. Leopold C. Harvey, Clerk to the Council, Holbeach

Roads, Sunbury-on-Thames U.D.C.
April 14.—For making up Rooksmead Road. Mr. Charles E. Goddard, Clerk to the Council.

Scavenging, Norton R.D.C.
April 10.—For the emptying of ashpits, &c., in the parishes of Dore and Totley. Mr. Thomas Smith, Clerk to the Council.

School, &c., Mountain Ash R.D.C.
April 15.—For the erection of a mixed school and the execution of works connected therewith at Abertaf, Abercynon. Mr. A. Morgan, Director of Education.

School Extension, Essex Education Committee.
April 11. — For the extension of the County Secondary School in Melbourne Road, Ilford, by adding six class-rooms, cookery, cloak-room, lavatories, &c. Mr. C. W. Clayson, B.A., Principal and Secretary, Essex County Secondary School, Ilford.

School Furniture, East Ham Education Committee.
April 17.—For the furniture required for Fourth Avenue School enlargement. See advt. in this issue. Mr. H. C. Padgett, Secretary, Education Office, E.

School, Glamorgan County Council.
April 12.—For the erection of a new council school at Bargoed. Mr. T. Mansel Franklen, Clerk to the Council.

Sewerage, &c., Kenilworth U.D.C.
April 18.—For the construction of covered sewage tanks, filters, pipe sewers, &c. Mr. J. J. Willington Wilmshurst, Clerk to the Council.

Sewer, Yeovil D.C.
April 13. — For the laying of about 650 yards of 6in. sewer and other works in connection therewith. Mr. J. E. Rodber, Clerk to the Council.

Sewer, Rochdale Corporation.
April 12. — For the draining and sewering work required in Moss Street and Crawford Street. Mr. W. H. Hickson, Town Clerk.

Sewers, &c., Castle Ward R.D.C.
April 11.— For the construction of about 200 lineal yards of 6in. sanitary pipe sewers, together with the necessary manholes, &c. Mr. James Jameson, Sanitary Engineer, Ponteland.

Sewers, &c., Ramsbottom R.D.C.
April 15.—For the construction of about 1,300 yards of 6in. to 12in. earthenware pipe sewers, together with all the manholes, &c. Mr. John W. Barlow, Clerk to the Council.

Shelter House, Islington Borough Council.
April 10. — For the construction of above at the disinfecting station, Seven Sisters Road, Holloway, N. Mr. William F. Dewey, Town Clerk.

Spaces on North Foreshore, Bridlington Corporation.
April 13.— Tenders invited for 50 spaces for season 1905, such spaces to be used only on week-days, and the rent to be payable in advance. Mr. A. E. Matthewman, Town Clerk.

Stationery, Books, &c., Torquay Education Authority.
April 14. —For the supply of above required for the public elementary or secondary schools, and for the pupil teachers' centre in the borough for one, two, or three years. Mr. F. S. Hex, Town Clerk.

Steam Generator, Stockport Corporation.
April 26. —For the supply of one 500-k.w. steam generator. Mr. Robert Hyde, Town Clerk.

Steam Rolling, Trowbridge U.D.C.
April 10. —For scarifying and steam rolling for twelve months. The Chairman of the Finance Committee.

Stone, Helmsley R.D.C.
April 13. —For the supply of whinstone and slag for repairing their roads for twelve months. Mr. Robert Pearson, Clerk to the Council.

Stores, &c., Dundee Town Council.
April 15. — For general stores, electrical goods, piping, building material, &c. Mr. H. Richardson, City Electrical and Tramways Engineer, Dudhope Crescent Road.

Stores, Pontypridd U.D.C.
April 16. For above in quantity for the ensuing eight months. Mr. J. Colenso Jones, Clerk to the Council.

Swimming Baths, St. Albans Corporation.
April 17.— For the erection of above in Cotton Mill Lane. Mr. A. H. Debenham, Town Clerk.

Timber, &c., Leith Harbour Commissioners.
April 11. —For the supply of timber, iron, and stores required by them from 1st May, 1905, to 1st May, 1906. Mr. Victor A. Noel Paton, W.S., 31, Melville Street, Edinburgh.

Town Hall Restoration, Shoreditch Borough Council.
April 18.—Tenders from responsible building firms for the above works. Mr. H. Mansfield Robinson, Town Clerk.

Tramways Extension, Batley Corporation.
April 17. For the works in connection with the extension of the permanent way and paving, overhead equipment, steel poles, &c., feeder cables, conduits, and accessories. Mr. J. Hanson Craik, Town Clerk.

Tramway Uniforms, Lancaster Corporation.
April 12.—For the supply of above for inspectors, motormen, and conductors on the electric tramways. Mr. T. Cann Hughes, Town Clerk.

Turret Clock and Case, Camberwell Borough Council.
April 29. —For an English-made turret time-piece clock, with two 3ft. 6in. dials; for a clock case, to be made of English oak; and for fitting up said clock in case standing out from external wall bracket, at Old Kent Road Baths. Mr. C. William Tagg, Town Clerk.

Water-Piping, Totnes R.D.C.
April 19.—For providing and laying 970 feet of inch galvanised iron water-piping, building small storage tank, and other work, at Cornworthy. Mr. F. K. Windeatt, Clerk to the Council.

Waterworks, Newton Abbot R.D.C.
April 12.—For providing and laying about 2,090 4in., and about 573 yards 3in. cast-iron pipes, with the necessary valves, hydrants, &c., and for the construction of a covered reservoir at Dunley to hold 12,000 gallons. Mr. F. Horner, Clerk to the Council.

Waterworks, Llantrisant R.D.C.
April 18. — For the construction of a reservoir and filter beds, &c. Mr. Gomer S. Morgan, Engineer's Office, School Street, Pontychun.

Waterworks, Bantry R.D.C.
April 11.—For the execution of works for carrying out the scheme for providing an additional supply of water for the town. Mr. Richard Croby, Clerk to the Council.

Appointments Vacant.

Art Master, Wolverhampton Corporation.
April 10. As above and to take the general management of their school of art; salary £300 per annum, rising to £375. Mr. Horatio Brevitt, Clerk to the Education Authority, Town Hall.

Assistant Accountant, Acton U.D.C.
April 18.—Salary £100 a year to commence. See advt. in this issue. Mr. Samuel Ford, Accountant to the Council.

Assistant Clerk and Storekeeper, Bermondsey Guardians.
April 15.—As head master's assistant clerk, for their schools at Shirley Wickham Road, near Croydon. Salary 10s. a week. See advt. in this issue. Mr. E. Pitts Fenton, Clerk to the Guardians.

Assistant Clerk, London Asylums Committee.
April 12.—As second assistant clerk at the London County Asylum, Bexley, Kent; salary £50 a year, rising to £70. Mr. H. F. Keene, Committee Office, 6, Waterloo Place, S.W.

Assistant Clerk, Reading Guardians.
April 11.—Candidates must be efficient shorthand typists; salary £120 a year, rising to £150. Mr. Charles Kift, Clerk to the Guardians.

Assistant Overseer, Great Marlow P.C.
April 15.—For the office of second assistant overseer to collect rates in the parish; salary £21 a year. Mr. R. N. Smith, Beaufort Cottage.

Assistant Schoolmistress, Newcastle-upon-Tyne Education Committee.
April 18.—At the pupil teachers' centre; salary £120 a year, rising to £140. Mr. Alfred Goddard, Education Offices, Northumberland Road.

Asylum Attendant, Bradford Guardians.
April 18.—Salary £25 a year, rising to £30. Mr. George M. Crowther, Clerk to the Guardians.

Attendance Officer, Wolstanton U.D.C.
April 10. As assistant to work under the direction of the chief attendance officer; salary £65 a year, rising to £80. Mr. Edward Hollinhead, Town Hall Chambers, Tunstall.

Charge Nurse, Bermondsey Guardians.
April 18.—At the infirmary, Lower Road, Rotherhithe. Salary £30 a year, rising to £35, with rations, lodging, washing, uniform, and £1 in lieu of beer. Mr. E. Pitts Fenton, Clerk to the Guardians.

Chief Auditor, Corporation of Bloemfontein.
April 14. Salary £600 per annum. See advt. in this issue. Messrs. Davis and Soper, 54, St. Mary Axe, E.C.

Chief Engineer, Municipality of Delhi.
Salary £500 a year. Major C. G. Parsons, Deputy Commissioner, Delhi, India.

Clerk and Storekeeper, Metropolitan Asylums Board.
April 14.—At High Wood School, Brentwood; salary 48s. per week, rising to 50s. See advt. in this issue. The Office of the Board, Embankment, E.C.

Clerk, Rutland County Council.
April 12.—As responsible Clerk in County Education Office. Salary £52 per annum. See advt. in last issue. Mr. E. W. Axtell Gardener, B.A., Secretary's Office, Oakham.

Clerk of Works, Derby Corporation.
April 10.—To overlook the plate-laying and paving works on the extensions of the tramways about to be carried out. Salary £3 10s. a week. Mr. John Ward, Borough Surveyor.

Industrial Trainer, Preston Guardians.
April 10.—As children's assistant industrial trainer; salary £20, rising to £25 a year. Mr. James Clarke, Clerk to the Guardians.

Industrial Trainer, Blean Guardians.
April 10.—Person appointed must be a tailor and be capable of teaching boys his trade; salary £26 a year, rising to £30. Mr. J. E. Burch, 3, Castle Street, Canterbury.

Inspector of Works, Fleetwood U.D.C.
April 8. To act under engineer, as resident engineer; must be skilled in the construction of brick and pipe sewers and sea outfalls. See advt. in this issue. Mr. Joseph Tildsley, Clerk to the Council.

Inspector of Pipes, Fleetwood U.D.C.
April 8.—To test cast-iron pipes which are to be made in the Staveley district. See advt. in this issue. Mr. Joseph Tildsley, Clerk to the Council.

Inspector of Nuisances, Shifnal R.D.C.
April 15. Salary £65 a year. Mr. H. Revell Phillips, Union Offices, Market Place.

Junior Clerk, Liverpool Corporation.
April 12.—Salary £40 a year, rising to £80. Mr. Edward R. Pickmere, Town Clerk.

Librarian, Birkdale U.D.C.
April 22.—Salary 30s. a week. Mr. J. F. Keeley, Clerk to the Council.

Manager of Baths, Harrogate Corporation.
April 10.—For the post of superintendent and general manager of their wells and baths. Salary £200. Mr. J. Turner Taylor, Town Clerk.

Relieving Officer, Stoke-upon-Trent Guardians.
April 13.—As assistant relieving officer, to act for a portion of the Longton district for a year; salary £80. Mr. C. Daniel, Clerk to the Guardians.

Schoolkeeper and Cleaner, London County Council.
April 10.—At the Upper North Street School, Poplar, E.; salary £1 13s. a week. Mr. G. L. Gomme, Clerk to the Council, Spring Gardens, S.W.

Surveyor's Clerk, Folkestone Corporation.
April 19.—As second clerk in the Borough Engineer and Surveyor's office; salary £65 a year. See advt. in this issue. Mr. A. E. Nichols, Borough Surveyor.

Teachers of Domestic Subjects, London County Council.
April 26. As above, in elementary schools. Salary £70 a year, rising to £112. Mr. G. L. Gomme, Clerk to the Council.

Tramways Inspector, Birmingham Corporation.
April 12. Salary £4 a week. Mr. John Price, City Engineer and Surveyor.

Wardsman, Middleton Guardians.
April 15. Salary £16 a year, with first-class rations and an apartment. Mr. John Stanton, Clerk to the Guardians.

Telephone Cable, Hull Corporation.
April 17.—For air-space telephone cable. See advt. in this issue. Mr. E. Laverack, Town Clerk.

THE SANITARY INSTITUTE.

EXAMINATIONS IN SANITARY KNOWLEDGE.

In SANITARY SCIENCE as applied to Buildings and Public Works, and for INSPECTORS OF NUISANCES (under the Public Health Act, 1875).

In London, on MAY 5th and 6th, 1905.

The last day for receiving applications is April 22nd, 1905.

---

for INSPECTORS OF MEAT and OTHER FOODS.

In London, on MAY 12th and 13th, 1905.

The last day for receiving applications is April 29th, 1905.

Forms of application and full particulars can be obtained at the Offices of the Institute, Margaret Street, London, W.

E. WHITE WALLIS, Secretary.

AGENTS REQUIRED in unrepresented districts for the Imperial Accident, Live Stock, and General Insurance Co., Ltd. Estd. 1878. Departments: — Personal Accidents, Carriage and Drivers' Accidents, Horse and Cattle Insurance. Claims paid £300,000. Address Mr. B. S. Essex, Manager, 17, Pall Mall East, London, S.W.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

Price List Post Free.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

THE BEST JUDGES OF CIGARS

Now obtain their supplies at

BENSON'S, 61, St. Paul's Churchyard, London.

Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

Patents of the Week.

BY A CHARTERED PATENT AGENT.

Out of 562 patents applied for during the week ended 1st April, the following are selected as being likely to be of interest to our readers. We shall be pleased to obtain further information regarding any of these applications for any of our readers desiring the same.

6405. Dixon. Chimney-pot.
6412. Ferris. Economical closet flush.
6417. Lever. Self-acting aerial roof ventilator and chimney-top.
6419. Smith. Novel method and means for automatically reversing the direction of a trolley current collector upon an overhead conductor for electric traction systems.
6441. Harding and Harding. Improved ball-valve for filling and controlling the supply of water to enclosed hygienic cisterns, boilers, and the like.
6455. Rogers. An improved means for fastening together the ears or clips of overhead electric trolley wires and wires used in conjunction therewith.
6490. Terry and Hayward Brothers and Eckstein, Limited. Improvements in level indicators for water and other liquids, especially suitable for deep wells.
6504. Marsh. Improvements in tramcar seats and the like, for protection from weather.
6505. Harlow. An adjustable joint for connecting flushing chamber of earthenware w.c.'s, urinals, or vessels of like nature to iron, copper, lead, or other metal flushing pipes.
6528. Smith. Improved apparatus for raising water by air pressure.
6545. Brading and Scrocton. An improved number lamp.
6551. Keys and Shakespeare. Improvements in the manufacture of troughs and conduits for the distribution of electricity, water, steam, and the like.
6583. Thirsk. Improvements in the art of constructing chimneys or stacks.
6597. The British Thomson-Houston Company, Limited (General Electric Company, U.S.A.). Improvements in devices for detecting leakage in electric transmission systems.
6606. Killen. Improved method and means for securely binding and locking in proper position the ends of steel rails of the permanent way of railways and tramways.
6613. Browne. A fire extinguishing medium.
6618. Brandt. Improvements in the application of oily materials, disinfectants, and the like, to roads and other surfaces.
6633. Shanks. Improvements in valve closets.
6654. Deighton's Patent Flue and Tube Company, Limited, and Walter Jonathan Lewin. Improvements in tipping wagons, carts, and the like.
6658. Sandberg. An improvement in the manufacture of railway and tramway rails.
6668. Jaeckel. Improvements in drain conduits.
6681. The British Thomson-Houston Company, Limited (General Electric Company, U.S.A.). Improvements in and relating to electric lighting systems, and in apparatus therefor.
6691. Robertson. Electric safety apparatus for cars or trains.
6767. Major. Improvements in roofing tiles.
6771. Giebel. Improvements in and connected with stones for building.
6781. Hanscott. Improvements relating to means for obtaining adhesion for traction on steep inclines.
6793. Wood. A water-spray for the use of steam road-rollers.
6802. Storm and Simpson. Improvements in automatic electric tramway signals.
6820. Fyfe and Shanks. Double-shouldered self-centring outlet joint for water-closets, slop-sinks, and the like.
6838. Jones. Improvements in or relating to the suspension of overhead conductors for electrically-operated railways and the like.
6904. Fowler and Hildreth. An improved method or arrangement for preventing accident or loss of life through the breakage of overhead electric wires.

Municipal Surveyors' & Engineers' Guide to Contractors.

ASPHALTE.
THE LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

CARTOONS.
Specialists in Photo.-Litho.
Photo-Copies, and Sun Prints,
VACHER & SONS. Westminster.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GARDEN FURNITURE.
S. CLARK & CO.,
Compton Works, Canonbury Road, N.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MANTLES.
VIVID INCANDESCENT MANTLE CO.,
60A, Wilson Street, London, E.C.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

MOTOR OMNIBUSES AND OTHER MUNICIPAL VEHICLES.
STRAKER & MACCONNELL, LTD.,
27A, Old Bond Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

PHENOZONE
SOAP

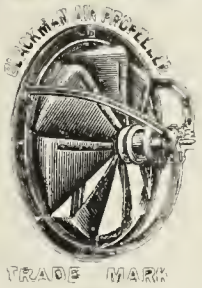
Has been proved to be the most efficient Cleanser for Mosaic and Tesselated Pavements, Marble Floors, Swimming and Slipper Baths, &c., after several years' use in numerous Public Baths, Electricity Stations and other Establishments.

"PHENOZONE SOAP," being in powder, is easy to use; it is also a strong, disinfectant.

SAMPLES FREE.

PHENOZONE SOAP CO.,
Wandsworth, London, S.W.

BLACKMAN
ELECTRIC FANS.



GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment,
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

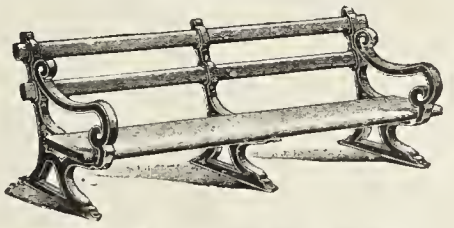
Bonds are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds Approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary, SHIRLEY FUSSELL.

OUTDOOR SEATS
CHAIRS, Etc.



S. CLARK & CO., COMPTON WORKS,
Canonbury Road, Highbury Road, London, N.
Contractors to the London County Council, the Glasgow Corporation, etc., etc.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

ITS CIRCULATION
IS FAR IN EXCESS
OF THAT OF ANY OTHER LOCAL GOVERNMENT PAPER.

For rates, address—MANAGER, MUNICIPAL JOURNAL 12, SALISBURY SQUARE, LONDON.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM
Edited by ROBERT BLATCHFORD.

You should read **"THE CLARION"** for reliable information as to
MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD
In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century,

You Must Read **"THE CLARION."**

Send for specimen copy to **"THE CLARION"** Office,
72, FLEET STREET, LONDON, E.C.

SEWAGE PURIFICATION.

THE SEPTIC TANK Co.

GOLD MEDAL,
ST. LOUIS, 1904.

FOR

COMPLETE INSTALLATIONS
AUTOMATIC APPARATUS
to meet all requirements.

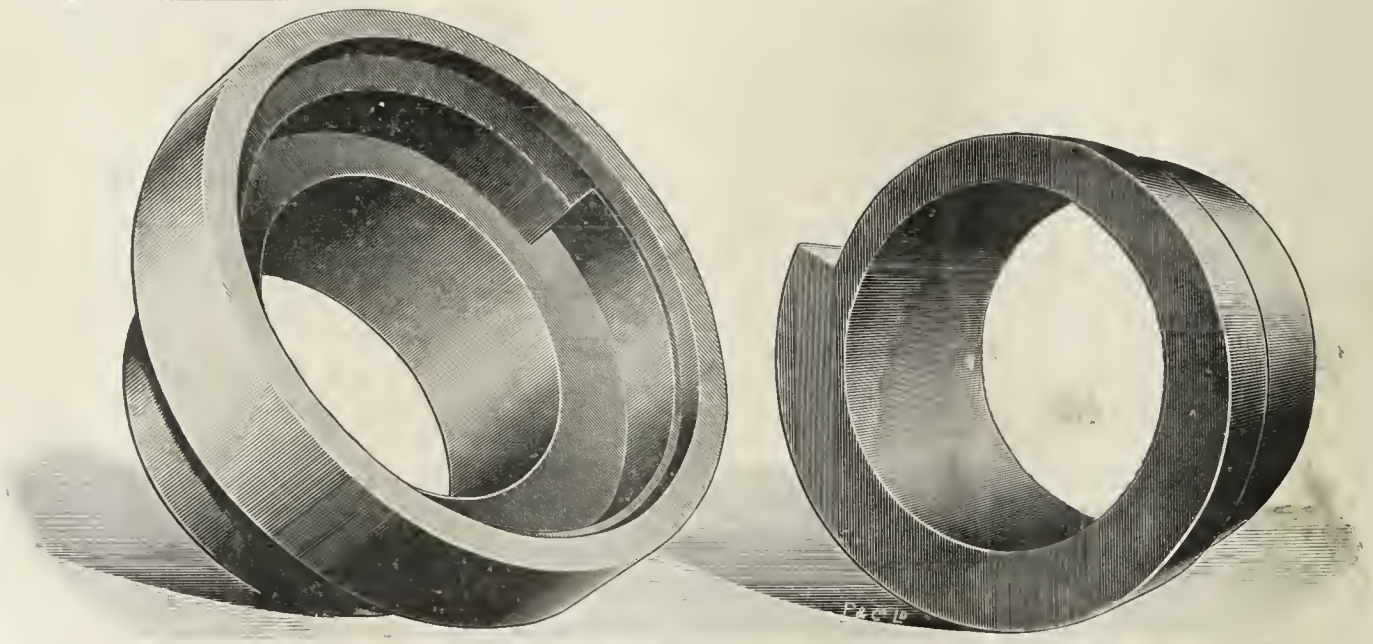
Chief Office: 1, VICTORIA STREET, WESTMINSTER.

FREEMAN'S PATENT DOUBLE SEAL PIPE JOINT.

Requires no Cement and no Skilled Labour,

therefore

the Cheapest Patent Joint now on the Market.



AS SUPPLIED AT IVYBRIDGE SEWAGE DISPOSAL WORKS.

These Pipes are manufactured in Stone Ware and Midland Ware. Further information and prices can be obtained on application to the Head Offices as below:—

Show-Rooms and Offices:—
2, Victoria Street,
Westminster, S.W.
29, Rue de Mogador (Opera),
Paris.
Telephone 279 WESTMINSTER.

FREEMAN HINES, Ltd.,

Engineering and Sanitary Specialists.

Telegraph: "FREEMANINE, LONDON."

Printed and Published by Edward Lloyd, Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE MUNICIPAL JOURNAL

No. 637.—Vol. XIV. FRIDAY, APRIL 14, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. TWOPENCE.

CONTENTS.

	PAGE
NEW SCULPTURE GALLERY AT ABERDEEN	353
MUNICIPAL OWNERSHIP IN AMERICA	355
"SPECIAL INVESTMENTS"	355
SANITARY LEGISLATION	356
CENTRAL UNEMPLOYED COMMITTEE'S LABOUR COLONY	357
MUNICIPAL TRADING — III. (By Mr. E. R. Pickmere, M.A.)	359
LOAN PERIODS FIGHT	360
EDUCATION AND APPRENTICESHIP	361
EDUCATIONAL NOTES	361
NOTES AND ANSWERS	363
INFANTILE MORTALITY AND ITS PROBLEMS	365
NOTES AND COMMENTS:— Holborn and Audit; The Comments of the "Times"; "The Rise in Rates"	367
Taxation of Land Values; Pity the B.E.T. Co.; Power Company and Ossett	368
ROUND THE UNIONS—III. (Richmond)	369
POOR LAW NOTES	371
OFFICIAL AND PERSONAL	358
ELECTRICITY SUPPLY	373
AUSTRALIAN TRAMWAY SYSTEMS	374
TRAMWAY TOPICS	375
TRAMWAYS ANALYSES	376
NEWS IN BRIEF	377
PORTLAND CEMENT (By H. K. G. Bamber, F.C.S.)	378
THE SURVEYOR AND CONTRACTOR	381 &c.

Official Advertisements.

ACTON URBAN DISTRICT COUNCIL.

ACCOUNTANT'S DEPARTMENT.

APPLICATIONS are invited for the APPOINTMENT of an ASSISTANT in the Accountant's Department, at a commencing salary of £100 per annum. Candidates must have had experience of the posting and balancing of Rate Books, the checking of collectors' accounts, and the general work of a Municipal Accountant's Department.

Applications, in candidates' own handwriting, stating age and experience, with copies of three recent testimonials, should reach the undersigned not later than Tuesday, the 18th April, 1905, endorsed, "Clerkship."

SAMUEL LORD,
Accountant to the Council.

Council Offices,
242, High Street,
Acton, London, W.,
5th April, 1905.

Official Advertisements.

BOROUGH OF EAST HAM EDUCATION COMMITTEE.

TO IRON STAIRCASE BUILDERS AND OTHERS.

TENDERS are invited for an IRON EMERGENCY STAIRCASE at New Beckton School.

Plans can be seen, and specification obtained, at the Office of Mr. R. L. Curtis, 11 and 12, Finsbury Square, E.C.

Each contractor will be required to deposit with his tender a £5 Bank of England note, or crossed cheque of equal value, which will be returned on the signing of the contract by the successful tenderer.

Tenders, on the printed form, must be delivered to me not later than 4 o'clock in the afternoon of Thursday, 11th May, 1905, and should be endorsed, "Tender for Emergency Staircase."

The Committee do not bind themselves to accept the lowest or any tender.

The person whose tender is accepted will be bound by his contract to pay the recognised Trade Union rate of wages and to observe the recognised Trade Union hours of labour for all work done under such contract, subject, in case of non-observance, to being disqualified for future tendering.

H. C. PADGETT,
Secretary.

Education Office,
East Ham, E.,
1st April, 1905.

WALTHAMSTOW URBAN DISTRICT COUNCIL.

ADVERTISING ON TRAMCARS.

THE Council is prepared to receive TENDERS for ADVERTISING on their Electric Trams.

Copies of Conditions, spaces available, and all particulars may be obtained on and after 17th April, 1905, of Mr. J. H. F. Bale, M.I.E.E., M.I.Mech.E., Electrical Engineer and Tramway Manager, Electricity Works, Priory Avenue, Walthamstow.

Tenders, addressed to the undersigned, are to be sent in not later than 5 o'clock p.m., on Friday, 28th April, 1905.

The lowest or any tender will not necessarily be accepted.

C. SYDNEY WATSON,
Clerk of the Council.

Town Hall, Walthamstow,
14th April, 1905.

PERFECT HANDWRITING is a rare accomplishment. Our new scientific method ensures perfect penmanship; tuition by post at moderate fees; remarkable results.—Send stamp for explanatory booklet No. 62, Alston's Commercial College, 9, Grimshaw Street, Burnley.

Official Advertisements.

MUNICIPAL COUNCIL OF THE CITY OF SYDNEY, NEW SOUTH WALES.

REFUSE DESTRUCTOR AND FLAG-MAKING PLANT.

THE Municipal Council of the City of Sydney, New South Wales, invite Tenders for the Supply and Erection of a six-cell REFUSE DESTRUCTOR, and for a FLAG-MAKING PLANT, at Moore Park, within the City of Sydney, New South Wales.

Conditions of Contract, Specifications, and Tender Forms may be obtained on application to the Acting Agent-General for the State of New South Wales, Victoria Street, Westminster, S.W.

Tenders will be received up to Tuesday, 30th May, 1905, addressed to the Town Clerk, Town Hall, Sydney, New South Wales, endorsed, "Tenders for Destructor and Flag Plant."

THOMAS H. NESBITT,
Town Clerk.

Town Clerk's Room,
Town Hall, Sydney,
9th February, 1905.

PORTSMOUTH CORPORATION TRAMWAYS.

ANNUAL CONTRACTS.

THE Portsmouth Corporation invite TENDERS for the SUPPLY during the next 12 months of—

Section A.—Ballast, Sand, and Grit.
,, B.—Portland Cement.
,, C.—Brooms and Brushes.
,, D.—Oils (not Lubricating), Chemicals, &c.
,, E.—Smiths' Coal and Coke.
,, F.—Timber, &c.
,, G.—Fodder.
,, H.—Brake Shoes.
,, I.—Engine Packings, &c.
,, J.—Engine-room Stores and General Ironmongery.

Form of Tender and further particulars can be obtained upon application to the Engineer, Mr. V. G. Lironi, M.I.M.E., A.M.I.E.E., Tramways Engineer's Office, Fratton, Portsmouth.

Tenders, properly endorsed and directed to the Chairman of the Tramways Committee, must be delivered at my Office before 12 noon, on Monday, 1st May, 1905.

Tenders arriving after that time will not be considered.

W. R. SPAVEN,
General Manager.

Town Hall,
Portsmouth,
6th April, 1905.

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutely PURE **Cocoa** therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

GRATES MANTELS & KITCHEN RANGES
CASFITTINGS & CHANDELIERS
BRUSHES PAINTS OILS & VARNISHES
BATHS LAVATORIES AND SUNDRIES FOR SANITARY ENGINEERS
WINDOW GLASS LEADED LIGHTS & CASEMENTS
BUILDERS' IRONMONGERY
BUILDERS' CASTINGS HEATING APPARATUS AND STABLE FITTINGS
TIMBER JOINERY WOOD & WHARF GOODS

All these Books are Bound (Cloth Boards) in

Two Volumes,

Containing 880 Pages 12" by 10" (54 in Lithography), and with our No. 27 Tariff.

Form one of the most Practical Up-to-date Guides to Purchasers of all kinds of Builders' and Sanitary Engineers' Goods yet issued.

We will send them **Carriage Paid,** to ARCHITECTS, ENGINEERS, and SURVEYORS upon receipt of bona-fide applications.

Please mention this Journal when applying.

YOUNG & MARTEN, LTD.

CALEDONIAN WORKS. STRATFORD, LONDON, ENGLAND.

B.T.H. ENCLOSED ARC LAMPS.

The best Commercial Value possible. Attractive in appearance, and of the finest materials throughout. Globe breakages reduced to a minimum, as they are by far the easiest lamps to trim.

WRITE FOR PAMPHLET.

THE BRITISH THOMSON-HOUSTON CO., LTD.

Head Office and Works: RUGBY.

B T-H

If you want the Best

REFUSE DESTRUCTOR, MECHANICAL STOKER, or FURNACE,

Write to

MELDRUM

TIMPERLEY, near MANCHESTER, AND 66, VICTORIA STREET, WESTMINSTER.

12,000 AT WORK.

In the Press.

Price 1s. 6d. Post free 1s. 10d.

THE LONDON MANUAL, 1905.

LONDON: EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, E.C.

THE BEST JUDGES OF CIGARS

Now obtain their supplies at

BENSON'S, 61, St. Paul's Churchyard, London.

Really good Foreign Cigars at 16s., 20s,, 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

The

Municipal Journal.

No. 637.—Vol. XIV. APRIL 14, 1905

ABERDEEN SCULPTURE GALLERY.

Municipal Activity in this Scottish City. A Glance at What has been Done in the Past. Educational Facilities. In the Opening of a Splendid Sculpture Gallery on Saturday by Sir George Reid, R.S.A., an Important Impetus will be Given to Art Culture. Magnificent Collection of Casts.

IN the opening on Saturday of a magnificent sculpture gallery at Aberdeen, worthy to be compared with that of any city in Europe, the councillors of this city and county show that they realise their high duties to those whom they represent.

It is much for a municipal body to work for the health and convenience of the community. Aberdeen has seen these duties nobly fulfilled by its councillors in the past. A very high standard of municipal work has long been maintained in this Scottish city. To-day the Corporation provides the water, gas, electric lighting supplies, and electric trams for the good of its people. It has built a municipal lodging-house, and erected artisans' dwellings. It has also a reversionary interest in the harbour.

But the Aberdeen Council has long felt that "the mind's the standard of the man." It has been in the happy position of having a large number of "mortifications" left for educational and charitable purposes. Few cities, indeed, are richer than Aberdeen in funds of this class, the revenue from them last year being as much as £5,502. But from an art point of view Aberdeen has been starved. Though it has produced several famous painters, notably George Jameson, John Phillip, William Dyce, the late Robert Brough, and Sir George Reid, it has not shown much regard for painting.

It has been with a consciousness of this deficiency that Mr. James Murray, chairman of the Art Gallery Committee, has long been trying to arouse public interest in the art gallery established some twenty years ago in his native city, but still carried on as a private institution.

A sculpture gallery, however, has every likelihood of meeting with the approval of the practical, hard-headed Aberdonian. For ages the city has been the centre of the granite industry, and why should it not have the opportunity of seeing the highest artistic attainments to which stone has been put, as represented by casts?

THE CENTRAL COURT.

And this new sculpture gallery will offer the widest range of study. It is in every way worthy the city. It makes, with the Aberdeen Art Gallery and Gray's School of Art, a most handsome block of buildings. Built of grey and red granite, it is a solid, substantial, symmetrical pile, not without ornate architectural features, but not too decorative. The two wings of the building are connected by a handsome arched gateway, which forms the front entrance to what is known as Gordon's College.

On entering the vestibule from the front doorway, attention is attracted by the bronzed-capped granite pillars supporting the handsome groined arches. These pillars are ten in number, and they are in various shades of colour, each pillar representing a different quarry. The marble floor and staircase also command immediate attention. From the vestibule the visitor

passes into the magnificent central sculpture court— the *magnum opus* of the architectural plan. It is, without question, the outstanding feature of the building.

Running round the Central Court, and supported by eighteen polished granite pillars, similar to those in the vestibule, is an elegant balcony forming a square. The balcony is carried from the wall to the pillars, on groined arches, with beautiful archivolt mouldings. A number of the granite pillars have been presented to the gallery by the Aberdeen Granite Association, and the granites represented include Rubislaw, Kemnay, Syllavethie, Tillyfourie, Tomsforest, Rora (Longside), Royal blue (Swedish), emerald pearl (Swedish), Sclattie, Peterhead, Hill o' Fare, Corennie, Isle of Mull, and Cornwall. In the wall, behind each pillar, is a handsome pilaster of dove marble, the wall between each pilaster being covered with Arras cloth painted in Venetian red.

The Central Court, like the vestibule, is paved with square slabs of Sicilian and dove marble. Though rendered less cold in appearance by the introduction of subdued tints—such as are contained in the Venetian red walls, the light green linen drapings on the wall above the balcony, the dark and light shades of marble, and the varied colours of the granites—this Central Court has not lost in classical stateliness and dignity and impressiveness The solid appearance of the marble work in itself contributes much to this general effect. The marble, which is largely used in the Central Court, the vestibule, the staircase, and the balcony is of two kinds—dove (dark), and Sicilian (light). Some idea of the extent of the marble pavement may be obtained from the fact that the slabs, which are each 12 inches square, cover an area of fully 4,000 square feet. These slabs are laid diagonally, Sicilian and dove alternately, giving a pleasing check pattern. The surface of the marble pavement has been sand polished to remove the glossy effect, and so help in securing the general subdued effect necessary to show the white casts to the best advantage. The slab pavement of the Central Hall extends to the vestibule and entrance lobby, but does not continue to the side courts.

These sculptural courts, access to which is obtained at either side of the Central Court, are large, well-lighted apartments. Green-coloured linen of a light shade is hung on the wall, and this forms a warmer background to the plaster casts than would have done the bare walls.

Ascending a broad, handsome marble staircase, and reaching the balcony, an excellent view of the court and the casts below is obtained. The balustrade of the balcony is of ornamental design, with a dove marble cope and base, and the floor is laid with Terrazzo marble. Between the frieze and the marble skirting, the walls are draped with light green-coloured linen, similar to that on the walls of the court below.

The collection of casts has been, without exaggeration, described as magnificent. Sir George Reid, R.S.A.—who performed the opening ceremony on Saturday—was early consulted, and he did his utmost to advise, with the object of bringing forward in his native city a collection which would be representative, and would be adapted, from an educative point of view, for the training of young sculptors. An additional advantage was the practical experience of Mr. Robert F. Martin, of the South Kensington Museum, who visited various centres on the Continent to arrange for casts being secured, and who devoted great labour to their proper arrangement in the gallery. Generous aid has been given by citizens, and by many friends outside the city. Inspired, in many cases, by the enthusiasm of Mr. James Murray, Glenburnie Park, the chairman of the Art Gallery Committee, numerous well-wishers of the gallery undertook to contribute one or other of the exhibits, which it was proposed should be placed in the courts. The result is a very large and complete collection, so far as its representative character is concerned.

The famous "Victory" of Paconius, found at Olympia, stands high on the balustrade of the gallery, the Parthenon frieze runs round the upper part of the walls. The Sargon relief from Kharsabad, and the head of King Amenophis from Thebes are among the familiar objects in the Assyrian and Egyptian Court. Facing them are the great figures from the east pediment of the Parthenon, and the Louvre "Victory" and several figures from the "Harpy" tomb, with many another masterpiece of Greek art, all admirably chosen and well placed. The sculpture of the Græco-Roman period is, very properly, not too numerously represented. A great deal of space is given to the sculpture of Italy, both in the Middle Ages and in the Renaissance, and French and German sculpture are allotted far more space than they get in any other British gallery outside London. Here the student may turn from Matteo Pisano, Luca della Robbia, Donatello Verrocchio, and Michael Angelo, to see what German masters like Adam Krafft and Frenchmen like Germain Pilon were doing within the same century. Room has been found also for a very typical series of ancient Celtic crosses and monuments in these islands, and there is a capital series of inscribed tablets of all periods, which ought to inspire the Aberdonian tombstone maker to higher things.

THE ITALIAN COURT.

Every cast is placed so that it can be seen and studied in a good light, and every cast is worth studying. So far as it is possible to illustrate the history of sculpture in a collection of about 200 casts, Mr. Murray's expert adviser, Mr. Martin, has done it, and, outside the British Museum, the Fitzwilliam Museum at Cambridge, and, possibly the Ashmolean at Oxford, there is no sculpture gallery in Great Britain to compare with this new Aberdeen collection from the educational point of view.

Through the offices of the Chairman of the Art Gallery Committee, a local charitable trust was induced to give £8,000 towards the new building, which is the work of Mr. Marshall Mackenzie. The cost of the casts, presented by 160 donors, has been £3,500.

Great enthusiasm marked the opening ceremony, which was followed by festivities. A large party conveyed to Aberdeen the previous Thursday night, was entertained there until Sunday night at the sole expense of Mr. Murray. It included several eminent scholars and literary men, who received honorary degrees from the University on Friday. Mr. Thomas Hardy and Mr. Maarten Maartens were the best known of the party. Signor Galli, from Rome; Mr. Robinson, director of the Boston Museum; Professor Bury, of Cambridge; and Mr. Haverfield, of Oxford, were among the other honorary graduates

AN AMERICAN TRIUMPH.

The Return of Judge Dunne as Mayor of Chicago is a Crushing Refutation of the Allegation so Frequently Made in this Country that America is Opposed to Municipal Ownership. A Strenuous Struggle for the Tramways is About to Take Place, and it is "the First Step Towards the Municipal Ownership of All Public Utilities in the City."

"In the 'forties and 'fifties an epidemic very similar to the present fever for municipal trading in England literally swept over the United States, and ended in bankruptcy and ruin."

THIS is a statement made in the paper read before the British Association at Belfast in September, 1902, by the Hon. Robert P. Porter. The "bankruptcy and ruin" of which he spoke, are doubtless responsible for the election last week of Judge Edward F. Dunne, the Democratic candidate for the mayoralty of Chicago, by a majority of 24,454 votes. Judge Dunne made his fight on the question of immediate ownership of the Chicago tramways being proclaimed by the municipality. The victory is the first decisive one that has been gained in America by the advocates of public ownership.

We give special prominence to the return of Judge Dunne, because it is a crushing reply to the statements made so frequently and so persistently that America will have nothing to do with municipal ownership. So far from this being the case, there are signs all over the country that the cities are determined to throw off the corrupting shackles of the companies that have stifled municipal development for many years.

The Present Position.

There are over 1,000 miles of tramway lines in Chicago, valued at nearly 200,000,000 dollars. The most important of the lines are owned by the Chicago City Railway Company, the control of which was secured two months ago by a syndicate, headed by Mr. Pierpont Morgan. The franchises of 75 per cent. of the lines operated by the company have recently expired, but the company retains 99 years' franchises for the operation of the rest of its system, which serves the business section of the city.

Judge Dunne will begin at once a desperate fight to wrest the control of the 99 years' franchises from the company, and it is anticipated that there will be a legal battle carried from court to court that will last two years. A sensational incident of the campaign was the revolt from the Republican ranks of Mr. J. M. Patterson, editor of the *Chicago Tribune*, the most important Republican paper in the West. Mr. Patterson resigned his position rather than support the Republican candidate for Mayor. Mr. Patterson's father is the proprietor of the paper.

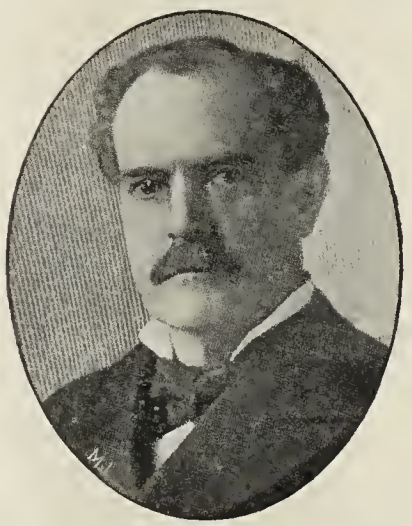
The First Step.

Mr. Dunne says the taking over of the tramway lines is only the first step towards the municipal ownership of all public utilities in the city. If the tramway companies refuse to sell their property, the city has the power to condemn the lines, and name a price for them. This would be submitted to the voters, and if the price were approved the plan would take effect.

Judge Dunne has for the last four years been the admitted champion of the municipal ownership party in Chicago. The question first came to the front in city politics in 1899, when John P. Altgeld stood for the mayorship on that platform. Although unsuccessful, he polled 47,000 votes, and prepared the course for the first real test ballot in the spring of 1902. This was taken under the public policy law, which enabled a referendum vote to be taken on the subject of municipal ownership, and resulted in an overwhelming majority in its favour, the electors, by eight to one, declaring themselves in favour of public ownership of the street railways.

Following upon the decisive verdict of the people, Mayor Harrison nominated a commission of ten leading citizens and supporters of municipal ownership to promote the legislation necessary to enable it to receive due effect. Judge Dunne was a member of this committee, and having personally investigated the results of municipal ownership in Europe, became its leading exponent and advocate, both publicly and before the State Charter Convention, which body ultimately declined to include a specific reference to municipal ownership of traction, gas and electric lighting plants in the constitutional amendment then being framed.

The struggle was then transferred to the State Legislature, where a Bill now known as the Mueller Bill, had been introduced, providing for the reference of proposed



JUDGE DUNNE.
(Chicago's Tramways Mayor.)

laws to the people. The Bill passed, and was submitted to the electors in the spring of last year. It was approved by a majority of 122,000, and immediate municipal ownership was also endorsed by a plurality of 70,000. Meantime, and since, negotiations of various kinds were proceeding with the traction companies, who were seeking by hook or crook to obtain an extension of their franchises, and a bitter attack was made by Judge Dunne on Mayor Harrison, on the ground of the latter's support of an ordinance, recommended by the transportation committee of the city council, which proposed a settlement with the railway companies, but made no provision for a referendum. This ordinance is still before the council, and was one of the main issues of the mayoralty election.

Writing on the eve of the election, the *Toronto World*, which is doing admirable work for the cause of municipal ownership, prophesied that Chicago might "earn the distinction of being the first city on the American continent to own and operate its street railway. The cause of public ownership has of recent years made remarkable progress in the great commercial capital, and now, after a campaign of ten years' duration, the citizens are being asked to give a straight expression of their opinion. So overwhelming have been the majorities given in favour of public ownership, that no attempt is being made to run a mayoralty candidate in the direct interest of the traction companies. What the citizens have to do is to choose between Judge Edward F. Dunne, the Democratic candidate, whose chief plank is municipal ownership, and the present mayor, Carter H. Harrison, who favours a settlement with the street car companies for the time being, and the eventual transfer of the railway system to the municipality."

Just recently the fight between the city council and the Chicago City Railway took an unexpected and dramatic turn. Spurred into prompt action by information to the effect that the street car company had in contemplation the filing of a suit in the federal court, in assertion of the 99-year rights it claims, and by the fact that the federal courts have shown themselves inclined to restrict the rights of legislative bodies, where so-called vested interests are concerned, the city council, acting on a message from Mayor Harrison, ordered a Bill in Chancery to be filed in the State Courts, attacking the 99-year claims of the company, and asking that all its rights in the streets be terminated.

Special arrangements had been made with one of the State Court judges, and the Bill was at once rushed to the county building and filed. The council then agreed that the company should be allowed to continue the operation of its lines until the Bill is passed on by the State Supreme Court.

HELP FROM GLASGOW.

At the last meeting of the Glasgow Corporation, the following cablegram was received from Judge Dunne:—

"Chicago, the first great city in America, following the lead of Glasgow, declares for municipalisation of street cars by 25,000 majority. Will you give the manager of your municipal tramways a vacation of thirty days to visit Chicago to confer with me? All expenses, first-class travelling, and hotel bills will be paid by me. Answer. —EDWARD F. DUNNE."

The necessary leave was unanimously granted to the tramway manager, Mr. James Dalrymple.

What will the Hon. Robert P. Porter say now?

"SPECIAL INVESTMENTS."

A Sheffield Arrangement with the Savings Bank.

IN his address before the Association of Municipal Corporations, reported in our last week's issue, Sir Albert Rollit referred to the provisions of the Savings Bank Act of last year in regard to the investment of the accumulations of the special investment departments in municipal securities.

A Finance Sub-Committee reported to the Sheffield Corporation on Wednesday that it had had under consideration the proposals of the Sheffield Savings Bank as to investing with the Corporation the accumulations of its Special Investments on the security of the Rates, which it was authorised to do by the Savings Bank Act, 1904.

The Sub-Committee had had an interview with the Chairman of the Governors and the Actuary of the Savings Bank, and had carefully considered the various points raised, and having regard to the fact that such proposals, if put into operation, would afford better facilities to the small investor, in the way of interest and amount of investment allowed by the bank, than at present prevail, recommended:—

"That the Sheffield Savings Bank be informed that the Corporation are prepared to receive from them from time to time the accumulations of their Special Investments in sums of £2,000 and £1,000 (but not less than £1,000), subject to the following terms and conditions, viz.:—

"A separate mortgage for a period of three years certain and then subject to six months' notice on either side at any time to be given in respect of each investment, at a rate of interest to be mutually agreed upon at the time of investment, the rate of interest which the Corporation are at present prepared to give being 3¼ per cent."

SANITARY LEGISLATION.

An Analysis of Sir Alfred Hickman's Bill to Amend the Law Relating to the Public Health. A Highly Useful Measure Making for Better Sanitary Administration, Drafted on Moderate Lines. The Planning of New Streets and the Speedy Commencement of Improvements. Infectious Diseases, Milk, Provisions, Common Lodging Houses, and Recreation Grounds.

WE have before us a copy of the Bill recently introduced in the House of Commons by Sir Alfred Hickman to amend the law relating to the public health. Sir Alfred has been the Member for West Wolverhampton for many years, and, as the representative of a progressive municipality and as having taken a deep and energetic interest in the subjects covered by the Bill, he is well qualified to act as pioneer of this measure in the House. The Bill has been prepared by the town clerk of Wolverhampton, who has had wide experience in things Parliamentary and municipal, and had a large share in the preparation of the important Public Health Act of 1890. The latter Act was one of the first which clearly recognised the adoptive principle in sanitary legislation. The present Bill is on similar lines, excepting the first part, which is general. The Bill, or any part or section thereof, may be adopted by urban authorities, and the Local Government Board is empowered by Clause 5 to invest a rural district council with the powers, rights, and duties of an urban authority under the Bill.

Seven Parts.

The provisions of the measure are classified under seven heads or parts. Part I. is general. Part II. relates to "Streets, Buildings, and Sewers." The remaining parts are entitled respectively "Sanitary Provisions," "Infectious Diseases," "Milk Provisions," "Common Lodging Houses," and "Recreation Grounds." It is not proposed to include the Metropolis within the scope of the measure. We proceed to refer to some of the principal sections of the draft Bill.

Clause 15 provides that the approval of plans of streets or buildings shall be null and void if the execution of the work specified be not commenced within a period of two years from the date of approval. This is a useful provision, and should prove helpful to local authorities. Under Clauses 17, 18, and 19, it is proposed to extend and make more effective the powers of urban authorities in reference to the position and direction of new streets, and the "future line" of existing streets. Where a private street is in urgent need of repair, and its condition constitutes a danger to passengers and vehicles, the local authority, under Clause 23, is empowered to require the necessary repair to be executed, and, in case of default, to cause the work to be done, and recover the cost from the owners concerned. Clause 26 forbids the erection, without the consent of the local authority, of a new building to front any street which shall exceed in height one and a half times the width of such street, "provided that the approval of the local authority shall not in the case of re-building any building existing at the adoption of this portion of the Act, be withheld so as to involve a *material sacrifice* of property." This proposal seems somewhat stringent, though it has, we believe, appeared in private Bills before. The proviso would seem likely to be fruitful of much contention, if not litigation, between the building community and the local authority as to who is to determine, or on what principles, when a "material sacrifice" of property is involved.

Extending the Powers of Local Bodies.

Under Clause 30 the approval of the local authority is required to the elevation of buildings on any land which becomes "front land" in consequence of any improvement made by such authority. The following clause extends the powers of local bodies in regard to temporary and movable buildings, and, where such are erected without the necessary approval, empowers the authority to pull them down and recover the cost involved from the owner. A minor but distinctly useful provision enables the local authority to require the owner of land adjoining any street to efficiently fence such land, so as to prevent any nuisance being caused or taking place from time to time, thereon. The following clause empowers the local authority to lop trees, hedges, or shrubs which overhang any street or footpath so as to obstruct or interfere with the light from any public lamp, or with the traffic, after having given seven days' notice to the owner. We should have thought the leading case of "Lemmon v. Webb," decided by the House of Lords in 1895, as to abating nuisances of this kind, might be regarded as sufficiently establishing the principle here involved. Indeed, in that case it was held that the right to lop overhanging branches could be exercised without giving any notice to the owner of the trees. Under Clause 35, in cases where the local authority has power to require any street to be sewered, it may require the provision of separate sewers for the reception of surface waters and of sewage.

Drainage.

The next clause enables a local authority, for the purpose of main drainage, to require a larger sewer to be made than is necessary for the ordinary sewerage of a new street, and to defray the extra cost of the enlarged sewer. Other clauses in Part II. of the Bill provide for the extension of Sec. 19 of the Public Health Act of 1890, and authorise the local authority to order new houses to be drained by a combined drain, to be constructed and maintained at the cost of the owners. Part III. extends the provisions of Sec. 41 of the Act of 1875 as to nuisances, and empowers a local authority to require the owner of any building to alter any existing closet accommodation (other than a water-closet) into a water-closet. It also enables the authority to require the occupiers of dwelling-houses to provide galvanised iron dust-bins of an approved size and construction. A point on which difficulties have arisen in the past is proposed to be settled by the provision authorising the local authority to charge for the removal of trade refuse. Under Clause 52 in the same part, the existing provisions contained in Sec. 39 of the Act of 1875, and Sec. 20 of the Act of 1890, as to sanitary conveniences, are extended so as to enable the local authority to provide such in proper and convenient situations, "in or under" any public street.

The Cleanliness of Milk and Fruit.

Part IV. of the Bill relates to infectious diseases. By its first provision "no person suffering from an infectious disease shall milk any animal the milk of which is intended for consumption *within the district* of the local authority, or pull fruit intended for consumption *within the same district*. . . . ." But why limit a useful clause as indicated by the words in italics? Should it not be applied to all milk intended for human consumption, whether within or without the district? This part of the Bill also requires dairymen to furnish lists of their sources of supply of milk and of customers in certain cases; and to notify any infectious disease existing amongst their servants. Clauses 70 and 71 should prove helpful in preventing the spread of infectious disease. These enable the local authority to compensate persons ceasing their employment at the request of the authority on the outbreak of infectious disease; provide for the removal of persons from infected premises, and authorise the provision of temporary shelters or house accommodation, and, if necessary, maintenance and attendance, for persons thus prevented from returning to their homes. Under Clause 76 the authority may provide nurses for attendance on those suffering from infectious disease, and may charge a reasonable sum for their services. Salutary regulations as to the manufacture and sale of ice cream are also included in this part of the Bill.

Part V. contains various provisions intended to secure the purity of the milk supply and its freedom from tubercular germs. Common lodging-houses are dealt with in Part VI. It is there proposed that the keeper of every such house, or his deputy, to be approved by the local authority, shall reside in the house at night; that such houses shall have sufficient and suitable sanitary conveniences, and that their registration shall operate for one year only, and must be considered at the end of that time.

Adoptive Character of the Bill.

Lastly, the Bill deals with recreation grounds. It empowers urban authorities to erect and maintain refreshment and reading-rooms in such grounds, also branch free libraries, pavilions, and other convenient buildings, and apparatus for games and gymnastics; and by Clause 67 it is proposed to empower the local authority to contribute out of the general district rate towards the support of a public band, to perform in a public park or garden in the district of the authority. The amount of such contribution, however, must not exceed one-eighth of a penny in the pound on the assessable value of the district, save where the consent of the Local Government Board to a higher rate has been obtained.

The Bill, it will be observed, does not contain any strikingly new provisions. It is drafted on moderate lines, and we understand that for every clause some precedent can be found in the private sanitary Bills of recent years which have been accepted by Parliament. In several instances the Bill merely defines more distinctly the principles already embodied in the Public Health Acts, and we believe the measure if passed will be highly useful in connection with sanitary administration throughout the country. The adoptive character of the Bill should facilitate its progress, and render it, if approved by Parliament, readily adaptable to the differing needs and circumstances of the various sanitary authorities. The Public Health Act of 1890 was also adoptive in character, and that it has been a success may be inferred from the fact, as stated in the thirty-second annual report of the Local Government Board, that up to the end of 1902 920 urban authorities had adopted it in whole or in part, and that 335 rural authorities had adopted so much of Part III. as is applicable in rural districts.

MUNICIPAL MATLOCK.

An Object-Lesson in Gas.

AN object-lesson in what can be done by public authorities with gasworks is presented by the annual report issued by the Matlock Bath Urban District Council.

In 1896, the Council fought a hard tussle in Parliament for possession of the local gasworks, then run by a limited liability company, and some idea of the fight may be gained from the fact that the costs totalled over £5,000. The profits of the undertaking the last year of the company's existence were £798, and gradually, but surely, under the control of the Council, the profits have risen until for the past twelve months they have been £1,572, and the surplus to be carried forward is nearly £300.

The profits in the eight years of the Council show an increase of 104½ per cent. The Council now proposes to move the gasworks so as to place them on a railway and canal to save cartage, which is a considerable item.

SALVATION BY LABOUR.

A Visit to the Newly-Started Labour Colony of the London Central Unemployed Committee, Situated on the Suffolk Coast, Reveals an Army of Busy, Happy Workers Who Are Tiding Over a Period of Distress. How They Live, Work, and Play. A Training College for Gentlemen's Sons, Acquired by Mr. J. Fels, of Philadelphia, is Being Used by the Erstwhile Unemployed. The Aims of the Future.

A BRACING wind was blowing from the open sea. A batch of workers, apparently of the ordinary broad-limbed, but "stumpy" type of agricultural labourers, raised their heads at our approach. We—a number of Pressmen—had travelled eighty miles to see these men, and to see how they lived at the Hollesby Bay Labour Colony. Five weeks ago they were walking the streets of London, unemployed, and with a hopeless feeling within them. Then, all the world, the great rich world, seemed against them, and they and their wives and children were faced with starvation. They would not have starved. Had they applied to the Poor Law Guardians they would have got relief when found to be quite destitute. But at what a cost! A man will do and suffer much before he "goes to the parish," but once that sturdy independence, which is at the root of all progress, has been broken down, he too often becomes a broken man, and in the workhouse soon ceases to be anything but a useless automaton, not unhappy, but a mere encumbrance of the earth, a dangerous example to the struggling and independent, and a heavy cost to the ratepayers.

But none of this batch went to the guardians or to the workhouse. They applied to one of the joint committees under Mr. Long's scheme for the unemployed.

The question was what to do with them. Money did not flow in to support Mr. Long's scheme as freely as was expected, and it would have been a long time before the Central Committee had thought of providing labour colonies on which a man might dig out his salvation, and of the value of which the Germans and the Americans have long been practically acquainted. But one came forward whose zeal was fired amongst the vacant lots of Philadelphia, and who lent the land on which the Poplar Board of Guardians started at Laindon, in Essex, nine months ago, the first English Poor Law Labour Colony. It was Mr. Joseph Fels who came forward and offered to the Central Unemployed Committee a Labour Colony full-fledged. It was not merely land for a Labour Colony. Mr. Fels was fortunate in hearing that a Colonial College, surrounded by 1,300 acres, situate on the sea-coast between Felixstowe and Aldburgh, was in the market. It had been closed for two years and its failure had broken its founder's heart. Here was the "very" thing—a Labour Colony ready made. Mr. Fels offered it to the Central Committee for three years at peppercorn rent, with the option of purchase at the end of that time for exactly the amount he gave for it. Needless to say, the offer was accepted, and we found that some 120 men had entered into possession and were occupying the same cubicles as their predecessors, the young gentlemen. This surely must be a high-water mark in the cause of Demos! By the time this is in the readers' hands the number will have increased to 200. The fine, commodious buildings, the external appearance of a part of which is shown by our illustration, would be capable of accommodating 400 men, were the cubicles removed and large dormatories thus formed, as doubtless in time they will. By that time, if that time be ever reached, the wives of many of the men will have taken up their abode upon the estate in cottages, the bricks of which will have been made and the walls built by their husbands. It is a married man's labour colony, and no single man need apply. But let us at once remove the impression that the men are to be kept down there as permanent residents Mr. Fels and the Central Committee know the meaning of self-help too well for that. The Colony will act as a buffer to keep the unemployed from compact with the Poor Law. In times of great distress there will be a considerable number sent to the Colony and put upon various works of improvement, such as the construction of a river wall. (The River Alde, with its peculiarly situated bed, running parallel with the sea shore, passes the estate.) There are 250 acres of heath land which may be profitably reclaimed.

The great bulk of the men will pass away to situations which the Central Committee will find for them, and to reach which they will have their fares paid. Perhaps it is unnecessary to issue a word of warning to the Committee on the danger of "fathering" the men too much in regard to the placing of them in situations. We feel sure the impression will be carefully removed from the men's minds that the Committee is responsible for the kind of situation obtained. It is to be trusted that as much as possible the men will be left to feel their own feet, as it were, in this matter. It is intended to keep a few of the more suitable men who pass through the Colony for more thorough training, with a view to their emigration, or to their becoming farmers. It will be for this latter class that small holdings will be established on other estates, and Mr. Fels is also helping to buy these holdings.

"Have you heard any grumbling amongst the men?" I asked an honest-looking man, who, with a hundred others, was putting beefsteak pie out of sight in a very honest way indeed. He was, I afterwards learned, a barber, and while attending to the outsides of the heads of his fellow-colonists would, like the Florentine Nello of George Eliot, be likely to get to know something of the contents of the insides.

"Naht to speak o'" was his prompt reply, with a quick, open glance that bespoke freedom of soul. Whilst I was talking with him one or two of the others joined in, and it was easy to gather that they were delighted with the opportunity that had been given them of being "set up" once more.

VIEW OF THE COLONY BUILDINGS.

"Did the digging make you feel stiff at first?"

"Oi should think so," was the ready reply. "Most o' us thought as 'r innards was wrong."

But we Pressmen had not dined ourselves, and the keen air from the North Sea had had full scope in the six miles drive from the nearest railway station. We envied the erstwhile unemployed their dinner, as some of us before the day was out pretended to envy their new life. Mr. and Mrs. W. B. Dean, superintendents of the Poplar (Poor Law) Training School, who had been temporarily in charge, but who have been now succeeded by Mr. Bolton Smart, of Ipswich, told us some interesting anecdotes as to the new colonists.

"I shall never forget the appearance of the men the first day," said Mrs. Dean, who presided at our table. "Their long, haggard faces and unkempt hair made a startling picture, and I must say I was a bit nervous when I saw them taking their candles and slouching off to bed. You see how different they are now."

"Had any insubordination?"

"Only in two cases. One man refused to obey orders, and a second got drunk."

"How did he get the money?" I asked. "The men are only allowed sixpence per week for tobacco, I understand?"

"His wife was foolish enough to send it to him. They were both dismissed. No, the men have had the greatest possible latitude accorded to them, and they have not abused it. They are only too grateful for what has been done for them."

After lunch we went over the Colony buildings and part of the estate. The main building is a long two-storyed range with wings, of red brick, wood, and tiles. There are large class and dining-rooms on the ground floor, and dormitories and cubicles above. Outside, there are the farm buildings, with large blacksmiths' and carpenters' workshops, laundry, dairy, apiary, and extensive gardens. Many of the men are now employed in these far-from-neglected gardens, under the direction of Mr. J. Wolton, the head gardener. The farm proper, which consists of 600 acres arable, 400 acres pasture, some marsh land, is under the charge of Mr. E. Johnson, son of the chief director of the Colonial College, who is retained as farm manager. The men work with almost amusing slowness, but we understand they had made great strides as agriculturists since their advent. The satisfactory part of it all is their willingness. They are willing and anxious to learn, and judging by some of their methods the object up to the present has not been to economise labour so much as to train the men. Consequently they are a few hundred years behindhand in some directions. The object, we take it, is not to make work but to give the men every advantage of training. Moreover, it is hardly to be expected that the work has yet been put into regular order.

There is a time for play as well as for work. The men rise at six a.m. and put in a nine-hour day, after which they are allowed perfect freedom. As at the Laindon Colony, I noticed that there is a football field. Cricket is also played. Such indoor games as billiards, draughts, and dominoes are very popular amongst the men. In this connection the name of Alderman the Rev. Henry Russell Wakefield, the Mayor of Marylebone, ought to be mentioned. One of his more recent generous gifts to the Colony has been a pianoforte, and the men constantly have music and singing. A generous donor is wanted to come forward and present a good library.

The visit of inspection was made under the guidance of Mr. G. Lansbury, Councillor and Guardian of Poplar, who is Chairman of the Working Colonies' Sub-Committee, and who has done so much of the spade work on the foundation of both Hollesley Bay and Laindon Labour Colonies. The Rev. J. H. Anderson, Mayor of Wandsworth, and Mr. John R. Neal, of the Christian Social Union Settlement, Hoxton, N., both members of the Central Committee, also travelled down with the party of Pressmen.

OFFICIAL & PERSONAL.

WEST HAM LIBRARIAN.

Appointment to "Remain Vacant for the Present."

According to a report presented at Tuesday's meeting of the Town Council, the post of chief librarian at West Ham, vacated by the resignation of Mr. Cotgreave, is to "remain vacant for the present."

For the next three months Mr. C. Whitwell, sub-librarian, and Messrs. S. A. Hatcher and D. McDougall, assistant-librarians, are to be placed in charge of the Central, Canning Town, and Plaistow libraries respectively.

OFFICIAL SALARIES.

The "Grading" System of the London County Council.

Questions having been recently raised in several parts of the country respecting the grading of salaried officials and clerks in the employ of the London County Council, the following description of the latter's system will be read with interest:—

A Standing Committee, known as the Establishment Committee, is responsible for the appointment, pay, duties, promotion, dismissal, or superannuation of the members of the staff (with the exception of the chief officers) employed at the Central Offices.

The annual report of the London County Council for the year ended 31st March, 1904, shows that the number of officials at the Central Offices on yearly salaries was 561. There are also about 364 temporary and other assistants at weekly wages, 37 lady typists, 77 messengers, caretakers, office cleaners, etc., 37 chainmen, and 65 charwomen.

The subordinate officials are classified in four divisions, the fourth class commencing at a salary of £80 a year and rising by £5 annually to £100; the third class commencing at £100 a year and rising by £10 annually to £150; the second class commencing at £150 a year and rising by £12 10s. 0d. annually to £200; and the first class commencing at £200 a year and rising to £300.

The first class is divided into two sections, the lower section commencing at £200 a year and rising by £15 annually to £245, and the upper section commencing at £245 a year and rising by £15 the first year, and afterwards by £20 a year, to £300.

The annual increment is in every case conditional on a certificate by the head of the department that the conduct of the official during the year has been in all respects satisfactory.

An open competitive examination is held from time to time for clerkships in the fourth class. Positions in the classes above the fourth class are obtained up to the third class by promotion according to merit, and into the second and first classes according to the nature of their duties.

The appointments are held during the pleasure of the Council, and are subject to the conditions that the persons appointed shall be required to give their whole time to their official duties; that they shall not be allowed to take any private or other paid employment; that on retirement they shall not claim to be entitled to any retiring allowance under the Superannuation Act, 1866; that they shall be subject to the Council's Regulations in respect of the Superannuation and Provident Fund (towards which a deduction equal to £2 10s. per cent. is made from the salary of each contributor); and, further, that their first year's service shall be on probation, and that their engagement shall be terminable at the end of the first year without notice if they are reported by the heads of their respective departments to be for any reason unsuited for the service.

Candidates for appointment as Fourth Class Clerks must be British subjects, and must be over eighteen and under twenty-three years of age on the latest date for receiving applications to sit for the examination. They must be free from physical defect of every kind, and those who are selected for appointment are required to submit themselves to an examination by the Council's medical examiner.

There are several appointments at higher salaries than £300 a year. Officials receiving salaries from £300 to £400 a year are styled Senior Assistants, and those receiving a commencing salary of £400 and upwards are styled Principal Assistants.

The following rules are in force with respect to Senior Assistants and Principal Assistants, except in the Solicitors', Chemists', Public Health, and Statistical Departments:—

(*a*) That a vacancy in the lower grade of the superior posts shall, in the absence of special circumstances, be filled by the promotion of the most deserving official in the first class on the recommendation of the head of the department, through the Clerk of the Council, to the Establishment Committee.

(*b*) That the salaries attached to the superior posts shall, unless otherwise ordered, rise from the minimum to the maximum by yearly increments of £25, and that promotions to such positions be made by merit and not by seniority. The annual increment is to be in every case conditional on a certificate by the head of the department that the conduct of the official during the year has been in all respects satisfactory.

(*c*) That when an appointment has been made the officer selected, if he is at the top of the first class, shall be at once entitled to the minimum salary fixed, unless he has already been for a year in receipt of a salary of equal amount, in which case his salary as from the date of his promotion shall be the same as if he had been a year in his new office.

(*d*) That when an officer selected to fill one of the higher posts is not at the time of his selection in receipt of the maximum salary of a first class officer, his salary for the first year of his new appointment shall be such maximum salary.

In some cases where officials have been called upon to perform special services beyond those which would in the ordinary course fall to them, the Council has recognised such work by recommendations for "special duty pay" as being preferable to promotions involving annual increase of salary or improved position, inasmuch as the work may not be continuous, and would not, therefore, justify other than special pay.

From enquiries made by the Town Clerk of Sheffield (Mr. H. Sayer) of the town clerks of several of the leading cities and towns of the country, it does not appear that there is any general system of grading salaried officials and clerks employed under provincial Councils.

The Wolverhampton Education Committee has decided to abolish all fees in public elementary schools maintained by it, as from 31st July next. The fees amount to £500 a year.

The Yarmouth Education Committee has decided to abolish the fees at the British School, which has been transferred to the authority. The following curious recommendation was also adopted:—That the recommendation to provide a hostel attached to the Day Training College for men at Cambridge be approved; that it is desirable to give "moral support" to the proposal of the Norwich City Education Authority to provide training college facilities for men, but that it is not desirable to incur financial responsibility in promoting the erection of new colleges, having regard to the increased provision throughout the country which is being made.

MUNICIPAL TRADING.*—III.

Clear and Lucid Survey of the Present Position of Municipal Activity: Gas Supply, Electric Lighting, Tramways. What has been Done and what may be Done for the Acquisition of these Undertakings. The Attitude of Parliament in the Past, and Present Day Legislation. Few Undertakings of a Commercial Character on which Municipalities may Enter, and these are in the Nature of Necessities.

[*By Mr. EDWARD R. PICKMERE, M.A., Town Clerk of Liverpool.*]

[*Concluded.*]

WE will now consider the manner in which a local authority can obtain powers to establish an electric lighting and power undertaking, and also a tramways undertaking.

By the Electric Lighting Act, 1882, the Board of Trade is authorised to grant a licence or provisional order to a local authority, company, or person to supply electricity for public or private purposes within a defined area. A licence does not require confirmation by Parliament, and it is granted for a limited time only; generally for a period not exceeding seven years, and is renewable from time to time for a like period upon such terms and conditions as the Board of Trade may determine. Licences are, however, seldom applied for, the powers now being almost always granted by provisional orders. Provisional orders were, before the Electric Lighting (Clauses) Act of 1899, very lengthy documents; but as this Act made applicable to all future provisional orders to be granted by the Board of Trade all the provisions set out at length in the schedule to the Act, the provisional orders now granted are much shortened and simplified. By the Act of 1882 the consent of a local authority was not required to the granting of a provisional order to any company or person to promote or to establish an electrical undertaking within the area of the local authority, but by the Act of 1888, the consent of the local authority was made necessary, except that the Board of Trade is given power to dispense with such consent where refused if it is of opinion, having regard to all the circumstances of the case, such consent ought to be dispensed with.

Before a local authority can apply for a provisional order it must pass a resolution at a special meeting, after one month's previous notice of the same. The mode of applying to the Board of Trade for the provisional order is by a memorial, and where the whole or any part of the proposed district is already being supplied under statutory authority by any local authority, company, or person, special notice must have been previously given to it or him, and also by public advertisements, which have to contain certain particulars set out in the rules to the Electric Lighting Act, 1882. Objection may be made to the order by any local or public authority, company, or person, and if clauses and other amendments are desired they must be sent to the Board of Trade. In the case of competing applications to supply a particular district from the local authority of the district, and from any other authority, company, or person, the Board of Trade will give preference to the application of the local authority of the district "in every case where, in the opinion of the Board of Trade, no special circumstances exist which render such a preference inexpedient."

Granting of a Licence.

A local inquiry may be held by the Board of Trade if the latter thinks it expedient to do so. Neither a licence nor a provisional order confers any monopoly. The Act of 1888, Section 1, expressly provides that "the granting of authority to any undertakers to supply electricity within any area, whether granted by licence or by means of a provisional order, shall not in any way hinder or restrict the granting of a licence or provisional order to the local authority or to any other company or person within the same area."

The establishment of electric power undertakings cannot, of course, be carried out without funds, and a local authority is authorised by the Act of 1882 to raise the moneys for the purpose with the consent of the Board of Trade.

The provisional order limits the area of supply, and the Electrical Lighting Clauses Act, 1899, contains a large number of provisions relating to the manner in which the works are to be carried out, the securing of a regular and efficient supply of electricity, the safety of the public and property, the limitation of the prices to be charged, providing for inspection and inquiry from time to time by the Board of Trade, and the enforcement of the discharge of the duties of the undertakers in relation to the supply of electricity and the imposition of penalties and otherwise, etc. The Board of Trade is empowered by the Electric Lighting Acts to make other regulations as it may think fit from time to time for the safety of the public, etc., and a local authority is empowered to make bye-laws for the same purpose, subject to confirmation by the Board of Trade.

With regard to tramways, I have already explained that a tramway undertaking can be established either by a Private Bill or provisional order under the Tramways Act of 1870, and if the tramway is intended to be laid by the local authority within its own area only, the usual method of procedure is by way of provisional order. This Act is divided into three parts. The first part relates to the granting of provisional orders by the Board of Trade and to the procedure for that purpose. The second part contains general provisions respecting the construction of tramways, and the third, similar provisions as to their working, and on miscellaneous points incident thereto. Parts 2 and 3 are to be incorporated (save so far as they shall be expressly varied or excepted) with all future provisional orders and special Acts.

Road Widening, &c.

As in the case of the Electric Lighting Provisional Order, the Order itself gives no power to the Corporation to borrow capital money for the purposes of the undertaking, but power is given by the Act of 1870 to the local authority to raise money on the security of the rates, with the consent of the Board of Trade. Where the promoters of the tramway are not the local authority, the consent of the local authority must be obtained before the tramway can be laid, and there is no power for the Board of Trade, in case such consent is refused, to over-ride the decision of the local authority. If, however, the promoters propose to lay down a tramway in two or more districts and any local or road authority of any such districts does not consent, the Board of Trade may authorise the construction of the tramway if it is satisfied that two-thirds of the length of the tramway is proposed to be laid in a district where the local authority of such district signifies its consent to the tramway, and in such case the Board has to make a special report stating the grounds upon which the order was made. You will see, therefore, that where a tramway is proposed to be laid in the district of one local authority only the local authority can prevent the tramway being laid should it think fit to do so. No doubt many local authorities have used this power to enforce conditions which have seriously handicapped a tramway undertaking, by causing them to expend large sums of money in widening roads, and in other ways. It is not necessary to go closely into the provisions of this Act, but it is sufficient to say that the sections contained in Part 1 regulate the procedure of the provisional order down to the time of its presentation to Parliament, and provide for the acquisition of land by agreement under the Land Clauses Act, and for the cession of the powers in the event of the abandonment of the works or their non-completion within the prescribed time, etc. One section requires, however, some notice, viz., Section 9, which requires the line to be laid as nearly as possible in the middle of the road, and gives a right of veto to one-third of the frontages where for a length of 30ft. the nearest rail runs within 9ft. 6in. of the footpath. This, however, only applies to a tramway in a town. It must be noted, however, that the section giving this veto does not apply to a tramway laid under the powers of a special Act of Parliament; but as it was found that no sufficient protection was afforded to frontagers in that case, it was recommended by a Joint Committee in the year 1872 that special notice should be given to each of the frontagers in order to enable them to oppose the Bill, and a Standing Order was afterwards made by both Houses of Parliament requiring these notices to be given, and also similar notices where there was a less distance of 10ft. 6ins., in case it was intended to run on the tramway carriages or trucks adapted for use upon railways.

The Question of Gauge.

With regard to the second part of the Act relating to the construction of tramways, Section 25 requires the tramway to be constructed on such gauge as may be prescribed by the Special Act, and if no gauge is thereby prescribed, on such gauge as will admit of the use upon the tramways of carriages constructed for use upon railways of a gauge of 4ft. 8½ins., and to be laid in such a manner that the uppermost surface of the rail shall be on a level with the surface of the road. In 1880 the Board of Trade issued a scale to determine the proportionate relative widths of gauge and car. Since the passing of the Act the gauge has been, in the case of some towns with narrow streets, reduced in width, but in Liverpool the gauge of 4ft. 8½ins. has been adhered to.

I do not think it is necessary to go into the other sections contained in this part of the Act, which chiefly relate to the opening of the roads by promoters, having regard to the fact that we are now assuming that the local authority is the promoter.

Part 3 contains an important provision conferring upon promoters the right of the exclusive use of the lines for carriages running or flange wheels, and a penalty is imposed upon any infringement of this provision without the sanction of the promoters, but the right of the public to pass along or over the lines, whether on or off the tramway, with ordinary vehicles, is preserved. It is also provided that where no other motive power is expressly prescribed, animal power only shall be used. It is well known, of course, that electricity is now becoming the motive power for tramways in the place of horses.

One of Two Courses.

If the promoters of a tramway in any district are not the local authority, the local authority may, within six months after the expiration of twenty-one years from the time when the promoters were empowered to construct the tramway, and within six months after the expiration of every subsequent period of seven years, with the approval of the Board of Trade, by notice in writing, require the promoters to sell, and the promoters are then required to sell the undertaking upon the terms of their paying the then value of the tramways and all land, buildings, plant, etc., but "exclusive of any allowance for past or future profits of the undertaking, or any compensation for compulsory sale, or other consideration whatsoever," and in case of difference, the value has to be determined by an arbitrator appointed by the Board of Trade. It is also provided that where any tramway in any district has been used for traffic for a period of six months the promoters may, with the consent of the Board of Trade, sell their undertaking (*inter alia*) to the local

* A Lecture delivered at the Municipal Offices, Liverpool, for the Liverpool Board of Legal Studies.

authority of the district. If, therefore, a local authority wishes to provide for the purchase of a tramway undertaking in its district, it may adopt one of two courses—either rely upon the above provisions, or insert in the Special Act or Order a clause enabling it to be substituted for the promoters within a certain specified period after the passing of the Act or Order. They may, however, also in the Special Act or Order vary the period of twenty-one years given by the provisions of the Act of 1870.

The promoters are entitled to demand and take tolls, *i.e.*, fares, for the use of the tramways, not exceeding the sums specified in the Special Act. The local authority of the district, whether the owner of the tramways or not, may make certain regulations as to the rate of speed, the distances at which the carriages shall be allowed to follow one another, the stopping of carriages, and the traffic on the road in which the tramway is laid. The promoters of the tramway and their lessees may make regulations for preventing the commission of any nuisance in any carriage or premises belonging to them, and for regulating the travelling in any carriage, and they may enforce the bye-laws and regulations by penalties. The local authority may also license the tramway cars and the drivers, conductors, and other persons having charge of the same. The Act also imposes penalties for the wilful injury or obstruction to tramways, and for other offences.

RURAL SANITATION.

The Condition of Cowsheds.

THE annual report of the medical officer of health for the Lancaster rural district provides material in support of the argument for greater control over farms from which milk supplies are sent into towns. From some parts of the rural district of Lancaster comprised within the Lancaster union quantities of milk are sent away daily to Manchester, Liverpool, and other towns, and concerning the dairies, cowsheds, etc. in the district the medical officer says:—

"Regulations for the control of dairies, cowsheds, and milkshops have been in force for more than twelve months, and only a few cowsheds have been registered in 1904. As the law stands, the authority has very little power in the matter, as the cattle are not kept constantly in the cowsheds, but are for about half the year turned out to graze. The cowsheds are dirty, filthy places, and very insanitary. Young stock are, as a rule, kept in dark, unwholesome dens, which seem designed especially for spreading tuberculosis."

None of the seven sewerage systems in the district, says the medical officer, can be described as satisfactory, and the absence of suitable water supplies to many parts of the district is again severely commented upon.

As to the construction of rural houses, Dr. Parker says:—

"I cannot say that I approve of the wooden shanties that are being erected in some districts. They are much more short-lived than a stone or brick house; they more quickly become dilapidated, and I doubt their ability to shelter the inmates from the inclemency of our northern winters."

The Surrey education rate in the first year was 4d., last year it was 7d., and now it is estimated to be 4½d. in the £ increase. The committee has issued a special memorandum indicting its predecessors on account of the dilapidated condition of the schools in the county. The necessity for the increased rate is largely explained as owing to the omissions of the previous school authority, together with the rapid growth of population. It has been decided to direct the managers of elementary schools to decline to receive into the schools after Easter next any child who shall not attain the age of five years prior to the close of the school year.

LOAN PERIODS FIGHT.

Next Monday the Swansea Corporation will Fight a Battle for the Municipalities in the House of Commons. The Point at Issue is the Length of Loan Periods for Permanent Works. The L.G.B. and the Swansea Water Scheme.

SWANSEA is fighting the battle of the municipalities in the House of Commons on Monday. The length of the period of repayment for water works loans is the point at issue. The Swansea Corporation is engaged in the construction of very large waterworks of a most permanent character, and while Parliament allowed the period of 60 years for the repayment of the original loan, the periods for the repayment of further sums for the same purposes have been fixed at 30 years, in the first instance by the Local Government Board, and this session by a committee of the House of Commons.

Under these circumstances, the Members of Parliament for the Borough of Swansea are proposing to move amendments to the Corporation Bill, with the view to obtaining a uniform period of 60 years for the repayment of the whole loan.

Swansea's Case.

The following is the statement proposed on behalf of the Corporation of Swansea in support of the proposed amendments:—

"The Corporation of Swansea, finding in 1892 that the supply of water from their existing sources was rapidly becoming insufficient to meet the requirements of their borough, obtained power by the Swansea Corporation Water Act, 1892, to construct a large reservoir by means of a masonry embankment, which will be of an absolutely permanent character, across the River Cray, in the Breconshire Hills, where an excellent supply of water can be obtained. The reservoir is situate at about 28 miles from the borough, and a long and costly aqueduct has, therefore, to be made. The works are nearly completed, and the Corporation hope to supply water therefrom next year.

"By the Act of 1892 the Corporation were empowered to borrow £270,000, such sum to be repaid within 60 years from the date of borrowing.

"Owing (amongst other things) to certain obligations imposed upon the Corporation during the passage through Parliament of their Bill of 1892, to the increase in cost of materials and labour, to difficulties which the Corporation have encountered with their contractors, and to the fact that the works which are being constructed are in many respects an improvement on the works then authorised, the borrowing powers of the Act of 1892 are insufficient.

Differing Periods.

"In 1898 the Corporation accordingly applied to the Local Government Board for power to raise a further loan of £100,000 for the purposes of the works authorised in 1892. This was sanctioned by the Board, but subject to the condition that the same should be repaid within 30 years.

"In 1902, by an Act passed in that year, the Corporation obtained authority to borrow a further sum of £71,000 for the purposes of the same works. The committee allowed the period of 60 years for the repayment of that loan, but they declined to extend the period for the loan sanctioned by the Local Government Board.

"In consequence of the very rapid increase in the population of the borough, and of the demands for a supply of water which are being made by the districts situate between the site of the reservoir and the borough, it has become necessary for the Corporation to construct an aqueduct in addition to the one constructed under the Act of 1892. It is accordingly proposed by the present Bill to authorise the Corporation to construct the additional aqueduct, with certain ancillary works, and to borrow £250,000 for that purpose, and also for the purpose of defraying the cost of completing the works authorised in 1892. The Corporation asked that this loan should be repayable in 60 years, and that the loan sanctioned by the Local Government Board should be repayable in the like period. The committee have rejected the latter proposal, and have limited the period for the repayment of the new loan of £250,000 to 30 years.

Burden on Rates.

"During the course of the proceedings before the committee, evidence was given by a most eminent water engineer, speaking with the experience of 50 years in the construction of waterworks, including some of the largest works undertaken by municipalities, to the effect that the embankment (which is by far the most costly part of the undertaking), will last for many centuries, and that the aqueducts will certainly last for 100 years.

"The works are larger and of a far more permanent character than is necessary to meet the requirements of the present inhabitants of the borough, and in constructing them an immense benefit is being conferred upon future generations. The reservoir is, in fact, capable of supplying a population of at least a quarter of a million, while the present population of the borough does not exceed 100,000.

"Under these circumstances, the Corporation submit that an unfair burden would be imposed upon the present generation if they are to be required to repay so large a proportion of the loan, and that in justice to them the periods limited for the repayment of the loan authorised in 1898, and of the loan authorised by the present Bill, should be extended to 60 years.

"The burden on the present generation is shown by the following figures:—

"To repay £350,000 in 30 years, the sum required annually for the sinking fund would be	£7,350
"To repay £350,000 in 60 years, such sum would be	£2,135
Difference	£5,215

"A penny rate in Swansea produces £1,500 per annum, and the difference between 30 and 60 years means a rate of 3½d. in the £ per annum."

The A.M.C. and the Issue.

"It is interesting to recall that the Association of Municipal Corporations passed the following resolution, relating to this loans question, at its recent annual meeting:—

"That the practice of the Local Government Board, and in some cases of Parliament, of granting short periods for the repayment of loans for the construction of permanent works for the supply of water and for sanitary purposes, and also of permanent buildings for education purposes, imposes an unfair burden upon present ratepayers, particularly as such works are usually made to provide for the wants of increasing populations, and that the Council be instructed to urge the foregoing upon the Local Government Board and Parliament in such manner as they think fit."

A Local Government inquiry was held at Bradford this week by Colonel A. G. Durnford, R.E., into an application by the City Council to borrow £1,740 for the purpose of a new recreation ground at Manningham. The Town Clerk (Mr. F. Stevens) explained that the money was required to complete the strengthening of the boundary of Manningham Recreation Ground, land for which was purchased some time ago. The Corporation proposed to sell off 3,735 yards at 7s. 6d. a yard, and to purchase at the same price 10,144 yards. By so doing, it would save the expense of altering the streets.

EDUCATION AND APPRENTICESHIP.

Apprenticeship the Best System of Preparation for Skilled handicrafts. Signs of a Revival of the Old Custom. America's Three-graded System of Apprentices. The Decay of English Apprenticeship. Messrs. Vickers, Sons and Maxim, and their Apprenticeship Scheme at Barrow and Sheffield. Durham and the Engineering and Shipbuilding Institution.

PRINCE BISMARCK once said, "The war of the future is the economic war—the struggle for existence on a large scale. May my successors always bear this in mind, and take care when the day comes that we are prepared for it." There is a very general consensus of opinion that among the many methods of fitting England's younger sons to wage war with her foreign competitors in trade, the best system of preparation for the skilled handicrafts is the old-fashioned apprenticeship. The Education Committee of the London County Council recently stated that in the metropolis the custom of apprenticeship had fallen into desuetude, and that it was considering how far the modern industrial conditions of London trades will enable any suitable modification of the system to be made use of.

A Revival.

It is not, however, in London alone that there are signs of a revival of apprenticeship for trades, although the different conditions prevailing in large provincial towns have combined to keep up this old custom, with a few modifications, but not much adaptation to present-day facilities. In the provinces, large employers of labour have recently been making a determined effort to bring their apprentices more into touch with the educational institutions which exist for technical training, and the new local education authorities are awakening to a sense of their duties and responsibilities in this respect. At Barrow, the well-known firm of Vickers, Sons and Maxim has just formulated a scheme which has for its object the encouragement of its apprentices to enlarge their knowledge at the public schools.

Messrs. Yarrow, the famous shipbuilders, have also adapted themselves to the new environment, and have had for some time in operation what is called the "sandwich" system, by which six months are spent by the apprentices in the works and six months (winter) in the technical school.

Lessons from America.

In the establishment of opportunities such as these, America is still able to teach us a lesson as to the interest shown by employers in the future employment of men trained in technical institutions.

"America and Canada," said Sir W. White, last year, "as well as Germany, show that they are imbued with the idea that it is a wise investment on the part of the nation to provide for all kinds of education, from elementary up to the higher." "It is almost impossible," he said, "to make expenditure on education too lavish, provided that it is well directed." "Employers should assist educational classes more than they do at present." He went on to show that the South Western Railway Company, as with other large employers, has supplied to the private industries of this country some of its most famous artificers. It is, we take it, quite unnecessary to contend for the obvious advantages accruing to the employer, to the workman, and to the State, in the provision of adequate technical training for the young apprentices.

British Ideas.

The real defect of our technical evening schools is that we have failed to distinguish between education of the "hand" and that of the "head," and the general complaint of want of proportion in our evening technical schools is due to this want of vision on the part of our educational authorities.

It is a curious British instinct that leaders are born, not made. The "lad o' pairts" is expected, by sheer force of will and character, to learn his trade, attend what technical school he can, and find his way to the top of the tree unaided. Now, in America, there are three distinct grades of technical training. These are exemplified by such institutions as the Sibley College (Cornell University) and the Massachusetts Technical Institute (Boston), which are the best of the highest grade of institutions.

Then come the secondary rank, such as the Louïs, Pratt, and Drexel Institutes, which are, as a rule, responsible for turning out men who hold an intermediate position between the chief managers of works and the skilled mechanics.

The last class includes the evening trade schools, which train the "hands."

It is this last category which claims our attention here. Some of them have no higher aim than the conversion of unskilled labour into partly-skilled labour. In one of the most important of these schools, we are told by a Moseley Commissioner, the teaching was trade teaching of the clearest character. Some of the instructors were trade unionists, and there appeared to be no active trade union opposition to the avowed objects of the school. The classes meet three times a week, for two hours each night, and six hours a week for six months. The attendance is very regular, and the students are very keen.

The American Apprentice.

Apprenticeship in America is as loose a term as it is with us. It's use covers the term "learners" of all kinds. The visitor to America finds three kinds of apprenticeship, viz.:—

(i.) The three or four years' apprenticeship system, somewhat analagous to our own, and occasionally provided to offer opportunities to sons of foremen, superintendents of shops, &c.

(ii.) The two years' course for college-bred men. These men are put through the shops in a short time.

(iii.) A scheme of employment for sons of friends, relatives, &c., of heads of firms and important customers.

Apprentices under (ii.) receive 30s. a week during probation; but to the capable there are chances of rapid advancement later on.

The American plan involves an elementary school course until fourteen years of age: four years at a high school: four years at college, or an institute of technology, where the instruction is industrial and not academic in character: and two years as an industrial cadet (ii.)

In the schools, there is no system of prize-giving to misdirect the mind of the youth from the real objective of his preparation. No premium is required of the youth on entering the works. On the contrary, he is greatly sought after, the managers believing that the future of their works depends on their ability to secure him.

The pay is small—hardly sufficient to live on. The young man will be twenty-five before he obtains a responsible post and be in a position to earn a living. After that, however, promotion is rapid, and prospects are great for the able and ambitious.

The best ability in the States is found, not in the professions and politics, as with us, but in industries and commerce, partly the cause and partly the consequence of present conditions.

(To be concluded.)

EDUCATIONAL NOTES.

Ashton.

The Education Committee has protested against the county decision prohibiting teachers or their wives, who are serving in the schools within any district, from acting as members of the local sub-committees for the district.

Barry.

The educational difficulty remains unsettled, principally because the district council insists upon the appointment of the teachers.

Birmingham.

The Magistrates' Committee has approved the following procedure in the case of young children brought before the courts:—Young persons under 16 to be proceeded against as far as possible by summons; the cases to be held in a separate room every Thursday; the parents or guardians to attend; and the children to enter the courts by a side entrance.

Brighton.

The Education Committee has declined the offer of the Church Schools Company to transfer the Albany school to the committee. It is proposed to adopt the slip system of visitation in force in Leicester.

Bristol.

In future, no fees are to be charged at the higher grade schools, this means a loss of £2,000 a year. The Education Committee decided to recommend the establishment of savings banks, following generally the plan adopted in Manchester.

Buckinghamshire.

The education estimates will probably require a rate of 9½d. in the £. It was decided to employ teachers to teach in other schools, when from any cause their own schools were closed—(other than holidays). Travelling expenses and other necessary expenses will be paid by the Education Committee.

Bury.

The Education Committee decided that a rate of 6d. in the £ (the same as last year) would be sufficient for the ensuing year. Bye-laws under the Employment of Children Act, 1903, were also adopted. Under these the employment of children under 11 for profit, and that of children between 11 and 14 before seven a.m., or after nine p.m., is forbidden.

Carnarvon.

The education rate for 1905-6 is estimated at 1s. in the £. The overdraft at the bank now amounts to £12,000.

Chatham.

The Education Committee decided to inform a body of managers who declined to sign the agreement for teachers, that unless the signatures were received within 21 days, the committee would decline to recognise the schools, either financially or otherwise.

Cheltenham.

The Education Committee is in difficulties with the Board of Education over school accommodation, and it was decided to inform the Board that whereas, on the basis of the cost of the schools in the borough in the year preceding the adoption of the Act, a contribution from the rates of £3,000 would have been sufficient, the sum needed during the ensuing year will be over £10,000. In view of this increase, the committee submits that it is entitled to as much consideration as possible in its efforts to meet the present difficulties.

Coventry.

The Education Committee is considering the question of appointing a medical officer, whose duties are thus defined:—

To examine children apparently defective in hearing, vision, or mind; to visit such children; to examine candidates for pupil teachership; to visit officers away through illness; to visit each school twice a year; to submit annual reports, and to make special reports if necessary. Another appointment is to be that of an expert to supervise all structural alterations and prepare plans for new buildings.

Derbyshire.

The suggestion of the Board of Education that radical changes should be made in the management of the New Mills secondary school, has been referred to a small committee of governors and local representatives to consider and report.

Dorset.

The County Education Committee has agreed to provide instruction for teachers in nature study at a cost not exceeding £50. The Board of Education is to have its attention drawn to the large additional cost thrown upon the ratepayers of the county by the abolition of monitors, and to be asked not to insist upon this change in the smaller schools, or at any rate, to suspend it until the initial deficiency under the Education Act is paid off.

Dunfermline.

The members of the Carnegie Trust have suggested the establishment of a college of hygiene and physical training for teachers —the course of study to extend over two years, and students to be at least 18 years of age. The question is being considered.

Durham.

The County Education Committee is asking for a rate of 1d. in the £ for higher education during the ensuing year. The report of Dr. Newman on the secondary accommodation was again considered, and after discussion, adopted. The principle was agreed to that the secondary school places should be not less than five per 1,000 of the population, and that any rate to be levied for higher education should be uniform over the whole county.

East Ham.

It was agreed to continue to insure the school properties in the Norwich Union Insurance Company. It was stated at the Education Committee that property to the value of £224,000 had been already so insured.

East Sussex.

The deficiency on the education estimates is £38,960. This is equal to a rate of 9d. in the £. £60,000 is put aside for teachers' salaries, as against £46,891 last year. A revised scale of salaries for teachers was adopted.

Essex.

The Education Committee has appointed a lecturer on hygiene for six months, at a salary of £175 a year, with travelling expenses.

Exeter.

The Willey School of Domestic Training is to be in full working order for six months, with a view of testing the value of the school. Six scholarships are offered, tenable at the school, and valued at eight guineas each.

Handsworth.

The rates for elementary education and higher education are 1s. and 1d. in the £ respectively.

Huntingdon.

At the Education Committee, it was stated that the education estimates showed a deficit of £8,068. Of the gross expenditure of £28,600, £19,000 was required for teachers' salaries. The committee has drafted a Bill for the better prevention of bee pest, and has invited the observations of the Beekeepers' Association thereon. It is a matter for regret that the county lectures on agricultural and other subjects have not been supported by the parish councils.

Ilford.

The Education Committee requires the sum of £23,500, which is an increase over last year of £1,100. The rate last year was 1s. 5¼d. (including secondary education). It is anticipated that there will be no increase this year. It was decided to support the movement that all districts whose education rate was over 1s. in the £ should receive relief from the Exchequer, so that no district should be burdened with a rate of more than 1s.

Jarrow.

The education rate is estimated at an increase of 4d. in the £. It was decided that whenever the average attendance reaches 94 per cent. for the whole of the schools during any one quarter, a special merit holiday be allowed.

Kent.

The Education Committee has declined to pay part of the cost of providing Bibles and Testaments for voluntary schools, in view of the statement of Sir William Anson in the House of Commons on 14th August, 1903. A suggestion to provide plants for school decoration was negatived, on the ground that the teachers and pupils should do this. The education rate is 10d. in the £.

Leeds.

The Education Committee reported the other day that there were 3,200 children in the elementary schools of the city who are not properly fed from day to day. Only 669 were the children of parents undeserving of any assistance. The revised scale of teachers' salaries was adopted; thus adding the sum of £4,700 a year to the rates. Rules relating to corporal punishment, similar to those adopted in London, Liverpool, Manchester, Halifax, Sheffield, Birmingham, Newcastle, and Bradford, were adopted.

Macclesfield.

The County Higher Education Committee is considering the desirability of establishing secondary schools and higher standard schools. The funds available for higher education in the county are £16,987 (local taxation, customs, and excise), and the proceeds of a 2d. rate (£27,532)—total £44,519. The cost of erecting a secondary school is estimated at £30 per head plus £5 for site, building, &c. Total outlay equals £76,300.

Manchester,

A movement is on foot to provide a new hall of residence in connection with the university at a cost of £60,000.

Mansfield.

At the Education Committee an increased estimate of £1,100 over last year was passed. The nett cost per child works out at £1 5s. 0d. A letter was read from Whitehall, dealing with the responsibility of the Nottinghamshire County Council in respect of the training of pupil teachers. The Board of Education suggested that the financial liability should be the subject of agreement between the Education Committee and the County Council. The county is accordingly to be again approached on this matter.

Merionethshire.

The Board of Education has communicated with the Education Committee, stating that it sees no reason why steps should not be taken to refund to the managers the expenses incurred by them in maintaining the schools.

Middlesborough.

Owing to the managers of certain non-provided schools disputing the power of the education authority to give direct instructions to the teachers, the Board of Education has been appealed to. The Board's reply is to the effect that directions respecting secular instruction should be given to the managers, and not to the teachers—the rights of the managers being expressly reserved by Sec. 7 (1) of the Education Act of 1902.

Norfolk.

The Education Committee reported that a mixed secondary school at Diss should be established, and that the urban district's offer to raise a penny rate be accepted. The education rate is 8d. (elementary), 1d. (higher), total 9d. in the £.

Northamptonshire.

The Education Committee decided to withdraw financial assistance from the managers of a Church of England school because they would not assure the committee that the violation of instructions as to the time and place of religious instruction would be discontinued. It was decided to approve the holding of horse-shoeing classes and competitions at the agricultural show at Towcester on 7th and 8th June next. Inquiries are being made into the desirability of introducing specific moral training and instruction in hygiene and temperance into the schools.

Notttngham.

At the last meeting of the Finance Committee, the deficiency was estimated at £13,527, of which £10,927 was required for education purposes. It was agreed to lay a borough rate of 1s. 3d. in the £. The increase in the rate was stated to be due to the necessary replacement of unsuitable denominational schools.

Oldham.

At the last meeting of the Education Committee, it was stated that the gross sum required for education was £99,613, of which teachers' salaries swallowed £52,696. A rate is to be levied for educational purposes for the sum of £42,000.

Plymouth.

At the Education Committee, it was reported that the number of children in average attendance had increased 1,226, which meant an additional grant of £300 upon the month.

Scarborough.

The education estimates for 1905-6 require £10,250 to be met out of the rate. This is an increase of ¾d. in the £. The increase is stated to be due chiefly to an improvement in teachers' salaries. The Board of Education approves of the suggestion that the educational year should terminate on 31st July.

Somersetshire.

The Right Hon. H. Hobhouse has been re-elected chairman of the County Council. A proposal of the Education Committee to join with the Bristol Education Authority in the establishment of a joint school for epileptic children was, after discussion, not carried. The question of attendance of the scholars at places of worship during school hours is to be reconsidered. It was reported to the council that the County Butter School had been a considerable success. The education rate is 6d., as against 3d. last year, plus 2½d. for secondary education; out of £18,977 required—£13,100 is for teachers' salaries.

Staffordshire.

The Board of Education fixed 1st of April for the appointed day constituting the councils of the Wolstanton Urban District and the Tunstall Urban District the local education authorities. Mr. A. P. Llewellyn, clerk to the council, was appointed secretary of the Education Committee, Tunstall, at a salary of £200 a year. It was decided to apply for borrowing powers for £5,000 from the Local Government Board.

NOTES AND ANSWERS.

The Ante 1904 Building Bye-laws Provide Against the Diminution of Open Spaces. The Legality of a Corporation Holding Land at a Loss to the Ratepayers. The Question of Disconnecting Drains on Private Property and Owner's Rights. Overseers Have No Power to Increase the Assistant Overseer's Salary. Borrowing Powers of Local Authorities and Assessable Value. Important Legal Decisions.

[BY A BARRISTER.]

702. — BUILDING BYE-LAWS — Open Space "Exclusively Belonging" to New Building.

In this Borough, the ante-1904 Modern Building Bye-laws are in force. A B C are three pieces of land which in shape form the letter L, thus $\frac{A}{BC}$. X owned A and B, and erected on A a building, B being the open space at the rear, which brought it within Model Bye-law 54. Subsequently, Y, the owner of C, bought B from X, and now proposes to build on C, using B (which is unfenced) as his open space. Can he do so? Under the bye-laws, there seems to be nothing to prevent the erection of any new building (C) so as to diminish the air-space of an existing building (A). In the Revise of 1904, an attempt is made to meet this. If the Borough adopted No. 53 (formerly 54), would it make any difference to Y's position? To put the point in another way: Do the ante-1904 Model Bye-laws, by merely requiring an open space at the time of the erection of a new building, sufficiently provide against the diminution of that open space in the future?—"PELICAN."

Under the building bye-laws, "every person who shall erect a new domestic building shall provide in the rear of such building an open space exclusively belonging to such building, and of an aggregate extent of not less than 150 square feet. . . ." The open space to be provided must exclusively belong to the building in question. If the space represented by B does not more than satisfy the requirements of the bye-law respecting an open space in the rear of A, it would seem that the proposed building at C cannot be erected without infringing the bye-law. Of course, if the space represented by B is larger than required by the bye-law, it may be possible to construct a building at C, so as to have an open space of its own of a size sufficient to comply with the bye-law as to open spaces. The ante-1904 bye-laws must be regarded as providing against the diminution in the future of any open space at the rear of house which may be or may have been marked out thereunder in connection with an existing building.

703. — U.D.C. [ELECTIONS — Placing Voter's Number on Ballot Papers — Disposal of Papers.

I shall be extremely obliged if you will kindly answer the following queries in the legal columns of your valuable journal:

1. Is it customary in elections of urban district councillors to put the burgess list number on the counterfoil of ballot-paper?

2. What is the object of such practice?

3. If such a practice is illegal, has the Urban District Council authority to restrain the returning-officer from instructing such to be done?

4. In whose possession do the ballot papers remain after the election, and for how long?

What becomes of the ballot-papers eventually?—"NOVICE."

These queries are all answered by the General Order of the Local Government Board of 1st January, 1898, as to the election of urban district councillors. That Order applies to such elections certain provisions of the Ballot Act, 1872, as set out in the third schedule to the Order.

1. Sec. 2 of that Act provides that the number of each voter on the register of voters shall be marked in the counterfoil of the ballot paper issued to such voter.

2 and 3. The object of this requirement is, no doubt, to enable the papers to be identified in case of a charge of personation, or other such offence, being made in connection with an election.

4. The returning officer is required by Sec. 39 of the Ballot Act to detain, for six months, all documents (including ballot papers) relating to an election of urban district councillors, and then, unless otherwise directed by an order of the county court having jurisdiction in the parish, or of any tribunal in which the election is questioned, he shall cause them to be destroyed.

704.—LAND ACQUIRED BY CORPORATION OR U.D.C. FOR CERTAIN PURPOSE—Can It be Let or Held Over without being so Used for an Indefinite Period?

Can an urban district council or corporation, having purchased a piece of land for the purpose of making a new road (and for no other purpose allowed to be acquired) retain that land for an indefinite period, letting it for a nominal rent, and not using it for the purpose for which it was acquired five years ago? The question really is whether land can thus be legally held for an indefinite period at a loss to the ratepayers, or must it be given up after a reasonable time has been given to commence the work? Is there any limit to the time the land can be held for such purpose and no other?—"X."

Generally speaking, the corporation of a borough may not dispose of corporate land, for whatever purpose it may have been acquired, by way of sale, mortgage, or alienation without the approval of the Local Government Board (Municipal Corporations Act, 1882, S. 108). The council may, however, grant a lease for a term not exceeding 31 years for such clear yearly rent, without fine, as the council thinks fit, and in certain other cases it has a limited power of leasing, without the Local Government Board's sanction. In effect, then, the council would not appear to be precluded by any statutory enactment from leasing for short terms at a reasonable annual rent, lands belonging to the borough, which may have been acquired for some public purpose. Possibly, however, an injunction might be obtained restraining a corporation from using land (by letting or otherwise) for a purpose inconsistent with that for which it was obtained. (See "Attorney-General v. Southampton.") There may, however, be particular provisions regulating this matter in a local act or provisional order where land has been acquired under such Act or Order for a specific purpose. Sec. 175 of the Public Health Act, 1875, provides that any lands acquired by a local authority (this will include urban district councils, and also municipal corporations acting as the urban sanitary authority for the borough) in pursuance of any powers in the Public Health Act, and not required for the purpose for which they were acquired, shall, unless the Local Government Board otherwise direct, be sold at the best price that can be got for the same. The local authority may not lawfully apply the land permanently to any other purpose than that for which it was obtained, unless the necessary sanction is obtained. It has been held in the case of the "Attorney-General v. Teddington Urban District Council" [1898, i. Ch. 66]. that land acquired for a definite purpose, and not immediately required for that purpose, may in the interval be used for a purpose which does not interfere with that for which it was originally acquired.

In practice it would be difficult to interfere with the discretion of a local authority which desired to let, temporarily, land acquired for a particular purpose, instead of using it for such purpose. We cannot say that it is illegal to do so for short periods, and no definite time can be fixed within which the land must be used for such purpose, or else sold in pursuance of the above-quoted section of the Public Health Act. After a reasonable time has elapsed, varying with the nature of the purpose for which the land has been acquired, and which ought not to be more than a couple of years or so (we should say), in connection with a purpose such as that referred to by our correspondent, viz., road-making, it is the duty of the authority, under the Public Health Acts, to sell, and probably in this case, also, such duty could be enforced by *mandamus* of the High Court.

705.—DRAINS AND SEWERS—Has an Owner of Property the Right to Disconnect Drains from other Property which joins the Drain laid on his Property?

A B C D and E have houses in a row. A says that the drains of the others run into a manhole on his premises. The sanitary authorities call upon A, and say his drains are not in order. He meets their requirements, and now wishes to call upon the other owners for so much each of the cost. If they refuse, he says he can give twenty-four hours' notice to each, and cut their drains off from going into the manhole. Has he power to charge or cut off said drain or sewer, whichever it may be?—"C."

We should have been glad of more information as to this question. Is the place referred to within or without the metropolis, and is the drain from the manhole a combined drain, or is it a sewer? To determine the latter question we must know more of the facts. Further, under what circumstances were these drains originally connected? On the facts as stated we may say, however, that we are not aware of any authority under which A could lawfully carry out his threat of disconnecting the drains belonging to B, C, and D, after giving them 24 hours' notice. We suggest that our correspondent should inquire of A under what legal authority he proposes to act, and warn him that any action he may take in the absence of such authority will be at his peril. The local authority might also be communicated with, as the proposed action by A may cause a public nuisance, and it might therefore be induced to interfere.

706.—ASSISTANT OVERSEER'S SALARY—Mode of Increasing—May an Increase be given Retrospective Operation?

The overseers of Z have decided to increase the salary of their assistant overseer. What are the steps to be taken?

1. Should the matter come before the Town Council of that borough, through its finance committee, for confirmation?

2. Is it still necessary, when it is desired to increase an assistant overseer's salary, that his appointment should first be revoked, and that he should be re-appointed at the increased salary?

3. Does the Local Government Board allow an increase in his salary to be made retrospective.—"S."

The overseers have no power to increase the assistant overseer's salary. Where this officer is appointed by the vestry, and where, though the power of appointing an assistant overseer has been transferred to the Borough Council by the Local Government Board, under Sec. 33 of the Local Government Act, 1894, the assistant overseer actually in office is an old appointee of the vestry, it is generally considered necessary that in order to increase his salary his appointment should be revoked, and that he should then be re-appointed at the increased salary proposed. This course is necessitated by Sec. 7 of the Act, 59 George III., c. 12, requiring the vestry to fix the salary, the amount of which has then to be set out by justices in the warrant of appointment.

Where the apointment is made by the town council, that body may increase, or otherwise alter, an assistant overseer's salary merely by a resolution, and, save where the officer concerned is an old appointee of the vestry, a revocation of his appointment is not a necessary preliminary to an increase of his salary. The matter in such cases should, therefore, come before the Finance Committee of the town council. The Local Government

Board does not interfere with the question of an assistant overseer's salary. The amount of such salary is a question for the vestry, town council, or other body appointing in the first instance. It seems to us that the grant of a retrospective salary would be considered illegal, and that the extra payment involved would be liable to be disallowed by the district auditor at his audit of the accounts of the overseers of the parish for which the appointment was made.

707.—BORROWING POWERS OF LOCAL AUTHORITIES—Borrowing for Electricity Undertaking.

A local authority has almost reached the limits of its borrowing powers, i.e., twice its rateable value, but wishes to erect electricity works. Can a loan be raised for this purpose under the circumstances, and, if so, would a special Act be required ?—"J."

Sec. 234 (2) of the Public Health Act, 1875, provides that the sum borrowed by a local authority shall not at any time exceed, with the balances of all the outstanding loans under the "Sanitary Acts," the assessable value for two years of the premises assessable within the district in respect of which such money is borrowed. This, in practice, is generally taken to be double the rateable value of the district for the current year, as shown by the valuation lists. The term "Sanitary Acts" does not include the Electric Lighting Acts; but from Sec. 8 of the Electric Lighting Act of 1882, and the schedule thereto, which latter expressly applies to loans under the Act the provisions and restrictions of the above-quoted sub-section of the Act of 1875, it seems clear that, in the case submitted by our correspondent, a loan for purposes of the electricity undertaking of the authority cannot be raised under the circumstances, unless a special further borrowing power is obtained from Parliament. Apparently, a local act or a special provision in a Provisional Order would be required in the matter.

RECENT LEGAL DECISIONS.

ELECTRIC LIGHTING—Can an authorised Company supply Electricity to Area outside Area of Supply, where Generating Station has been Erected?—The Attorney-General (on the relation of the Willesden U.D.C.) v. The Metropolitan Electric Supply Company.

The Court of Appeal gave judgment recently on an important question affecting electric lighting companies, and also local authorities, which have electric supply undertakings. The company in this case had, as usual, a defined area of supply. Under Sec. 5 of its Special Act, it was prohibited from supplying energy or laying down electric lines or works beyond such area "otherwise than under the authority of Parliament." A later Special Act authorised the company to provide a generating station in Willesden (*i.e.*, outside the area of supply). In December, 1903, it began to supply with electricity the London and North-Western Railway Company, which body has sidings adjoining the generating station in Willesden. The Willesden Urban District Council now contended (and successfully, as the result proved) that this was a violation of the statutory prohibition contained in the Company's Acts. The company argued that what it was doing was not done in the exercise of any authority given by statute, or by the Board of Trade. It was acting (it was contended) as a company under the Companies Act, 1862, and the exercise of its powers in pursuance of its incorporation under that Act was not prohibited by anything in the company's Special Acts. This view, however, the Court of Appeal (upholding the view taken by Mr. Justice Farwell, in the Court below) could not accept. These Electrical Supply Acts could not (the Court held) be considered independently of the general legislation on the subject. The effect of Sec. 5 of the Act above referred to was, that when the right of supply was given to the company, it was not to supply electricity beyond the specified area. The legislature in this instance had relaxed the prohibition so far as to allow of a generating station being erected outside the area of supply. Judgment was accordingly granted in the sense desired by the Urban District Council, and an injunction issued restraining the company from supplying electricity outside its area.

DISQUALIFICATION OF COUNCILLOR by reason of Interest in Contract with Council—Sec. 12 of the Municipal Corporations Act, 1882—Education Act, 1902—Cox v. Truscott.

Owing to pressure on our space we have not hitherto been able to deal with an important case, decided in the King's Bench Division early in March, as to the effect on a town councillor's qualification for office of his interest in a contract with the managers of a non-provided school under the council. We are indebted to a correspondent for a full account of the proceedings as reported in the *Maidenhead Advertiser* of the 8th of March. The action was brought against a Maidenhead councillor to recover penalties from him for having voted at meetings of the Town Council when interested in a contract with the Council. It appeared that the defendant was a councillor, a member of the Council's Education Committee, and a trustee of a Wesleyan school, now maintained by the committee, under the Act of 1902. In the course of his business, the plaintiff supplied coal and coke to the school, and had since voted, and was, therefore, disqualified (it was argued) for acting as a councillor, under Sec. 12 of the Municipal Corporations Act, 1882, in that he was interested in a contract "with, by, or on behalf of the Council." The coal and coke were ordered by the trustees, but two-thirds of the cost was paid by the Education Committee. The bill for the whole amount was sent to the trustees, and then passed on to the committee, which paid its proportion. It appeared that the defendant had for a long time been supplying coal to the trustees of the school and of the Wesleyan chapel, and the question was what effect on this old standing contract had the Education Act, which placed the school under the Town Council. In his judgment on the case, Mr. Justice Darling came to the conclusion that the defendant had, "directly or indirectly," an interest in a contract made on behalf of the Council, and that this disqualified him for office in one sense. "Let us see in what sense. The statute does not say that he shall be disqualified altogether. 'A person shall be disqualified from being elected, or from being a councillor, if, and while he has, directly or indirectly, by himself or his partner, any share or interest in any contract or employment with or by, or on behalf of the council.' . . . But he is only disqualified while he has an interest in it—he can get rid of his disqualification by getting rid of the contract. The disqualification is got rid of if the contract is *performed*. There is no more to be done if the contract is performed." The learned judge then proceeded to point out that the defendant had only voted at Council meetings when his side of the contract had been performed, and when his only interest therein was that the trustees should pay him. "When the goods had been delivered there was nothing left of the contract to incriminate." The action, therefore, failed, and judgment was given for the defendant.

This case will be of great interest and importance to councillors and members of education committees generally. It lays down clearly, that interest in a contract with the trustees of a non-provided school is, generally speaking, equivalent to interest, direct or indirect, in a contract with the council which maintains such school. The other principle which has now been laid down, definitely, we believe, for the first time, is that when nothing remains to be done on a contract with a local authority save to pay the bill, a liability involved, the contractor cannot be said to be interested in such contract so as to disqualify him for office as councillor, under Sec. 12 of the Act of 1882 or other similar provisions applying to members of the various local authorities.

CONTRACT WITH CORPORATION to Construct Outfall Sewer—Work Badly Done—Liability of Contractors—Plymouth Corporation v. Pethick Brothers.

After a trial lasting nearly eight days, the Town Council of Plymouth has obtained a judgment in its favour, awarding heavy damages—amounting to £20,000—against certain contractors who had undertaken to carry out drainage and sewerage works for the Council, and had executed such works imperfectly. The defendant contractors had undertaken to construct an outfall sewer to carry sewage from the tanks to an underground tunnel to the extreme low-water mark, and then discharge such sewage, by means of pipes six feet and four feet in diameter, to a distance and depth of 70 feet to 80 feet below low-water mark. It was necessary that these pipes should be at the bottom of the sea, and covered with concrete, so that they should not be caught or injured by ships' anchors. The plaintiff corporation brought evidence to show that the work had been imperfectly done, and that the work was, in part, useless. Finally, the charge of fraud which had been originally made against the contractors having been withdrawn, a verdict awarding the corporation £20,000 damages was agreed on, and judgment entered accordingly for the plaintiffs, together with the costs of the action.

MUNICIPALITY CARRYING ON TRAMWAY UNDERTAKING—Alleged Negligence—Limitation of Time for Bringing Action—Lyles v. Southend-on-Sea Corporation.

In this case, the Court of Appeal had before it for decision the question whether Sec. 1 of the Public Authorities Protection Act, 1893, requiring actions against public authorities to be brought within six months of the act of default complained of, applied to a municipality which owned and controlled a tramway undertaking under a provisional order of the Board of Trade. A similar question was raised before the High Court in 1904, in the case of "Parker v. London County Council" (68) J.P. 239). It was there contended that, as the section referred to would not have applied to the Tramways Company whose undertaking the London County Council had taken over, it should not apply in favour of the latter merely because of the change of ownership of such undertaking. The Court, however, in that case held that an action for negligence on the part of the tramway officials of the London County Council must be brought within the period of six months prescribed by the section.

In the present case, that decision had been followed by Mr. Justice Bigham, in the Court below, and the Court of Appeal now confirmed this view, and their judgment must, therefore, be regarded as finally settling the point.

[NOTE.—We are compelled to hold over several queries until next week, owing to pressure on our space. Will correspondents kindly send queries intended to be answered in the following Friday's issue of the JOURNAL so as to reach us by Monday morning ?]

LOUTH AND LIGHTING.

THE Louth Town Council has now definitely committed itself to an electric lighting scheme, the cost of which is approximately £13,000. At the outset a scheme estimated to cost £17,000 was put forward.

The Louth Gas Company also has not been idle, and prior to Tuesday's meeting of the Council it forwarded to the members of the Corporation an offer to submit the differences which exist between these two bodies in respect to public lighting to arbitration.

Presumably the next step will be the holding of a Local Government Board inquiry, which it is not likely will be long delayed.

TO SAVE THE CHILDREN.

The Question of Infantile Mortality having become of Grave National Importance, a Committee of Influential Members of Parliament and others has been Formed to Ascertain the Powers of Local Authorities in Regard to the Problem, and to Secure the Co-operation of Societies in an Attempt to Solve it. A Reform Movement that is Likely to Produce Vital Results.

THE subject of the heavy infantile death-rates in the industrial districts of Great Britain, has been referred to, not once, but many times during the past year in the columns of the MUNICIPAL JOURNAL.

At the end of January we drew attention to the striking results attained at Le Creusot (Central France), by Messrs. Schneider Brothers, in the provision of better homes, better wages, parks, and playgrounds, and by the non-employment of married women in the factories, thus leaving "the child to the mother, and the mother to the child."

We also pointed out that, valuable as the provision of municipal milk depots undoubtedly is, any thorough treatment of the infantile death question must include many other forms of municipal activity. "Bundles of evils need bundles of remedies."

The subject is one of such vital importance from the point of view of public health, that we purpose to make a series of special municipal inquiries upon the subject, and to place before our readers the views of leading doctors upon the subject. Dr. Robertson (Birmingham), Dr. Hope (Liverpool), Dr. Niven (Manchester), and Dr. Millard have all prepared some valuable reports, which we trust to place under contribution.

A much-needed stimulus to public opinion will undoubtedly be given by a meeting held on Wednesday last in No. 15 Committee Room of the House of Commons. The meeting was called on the invitation of Mr. Thos Burt, M.P., and Mr. John Wilson, M.P. (Mid Durham), and the following members were present:—Mr. T. Burt (in the chair), Sir Walter Foster, Sir J. Batty Tuke, Dr. Hutchinson, Dr. Ambrose Thompson, Sir John Gorst, Sir Walter Plummer, Mr. Charles Fenwick, Hon. Claude G. Hay, Messrs. John Johnson, Herbert Samuel, J. H. Yoxall, Richard Bell, and George Harwood. Sir Michael Foster and Mr. John Wilson wrote expressing regret at unavoidable absence.

The following figures, prepared by Mr. Henry R. Aldridge (Secretary, National Housing Reform Council), were placed before the meeting. (Some of these have already appeared in the MUNICIPAL JOURNAL. They are, however, so striking that we again give them.)

Loss of Life in Birmingham.

Table showing the range of infantile mortality rates in the various wards of a large city:—

Birmingham 1904 (whole year).

Rotton Park	179
All Saints	173
Ladywood	192
St. Paul's	225
St. George's	213
St. Stephen's	232
St. Mary's	331
St. Bartholomew's	263
Market Hall	187
St. Thomas's	196
St. Martin's	185
Edgbaston and Harborne	133
Deritend	208
Bordesley	146
Duddeston	216
Nechells	219
Balsall Heath	150
Saltley	178

It will be seen that the range is from 133 in Edgbaston and Harborne to 331 in St. Mary's.

The figures for Bournville (which is practically a working-class village), 4½ miles from Birmingham, are not yet published for 1904, but for 1903 the infantile mortality rate was 65 per 1,000 births.

That the ward rates for other towns will show an equally bad, or even worse state of affairs, can be seen from the following table of infantile mortality rates per 1,000 births, fourth quarter of the year, 1904:—

Burnley	261
Blackburn	252
York	223
Preston	212
Sunderland	201
Oldham	194
Middlesbrough	192
South Shields	191
Birmingham	188
Gateshead	186
Hull	182
St. Helens	178
Stockport	177
Newcastle-on-Tyne	174
Manchester	170
Salford	166
Leeds	158
Halifax	154
Rochdale	152
Nottingham	152
Coventry	150

The Possibilities of Infant Life-Saving.

The Medical Officer of Health for Birmingham estimates that "a reduction of 50 per cent. in the rate of infantile mortality in Birmingham would mean the saving of 1,500 lives per annum, and a reduction in the general death rate by about 3.0 per 1,000 per annum."

Actual Infant Births and Deaths in 1903.

(England and Wales Only.)

Children born	948,271
Infant deaths (under 1 year)	124,718

A rate of 131 per 1,000 births. (The lessened rate was largely due to the cold, wet weather in 1903.)

Average Proportion of Infant Deaths.

(England and Wales, for 10 Years—1893-1902.)

The rate for 10 years, 1893 to 1902, was 152 per 1,000.

The registration counties with the lowest averages for 10 years, 1893 to 1902, were:—

	Deaths per 1,000 Births.
Wiltshire	100
Dorsetshire	101
Westmorland	102
Rutlandshire	104
Hertfordshire	107
Herefordshire	109
Buckinghamshire	111
Somersetshire	111
Oxfordshire	111

The registration counties with the highest averages were:—

	Deaths per 1,000 Births.
Lancashire	178
Staffordshire	169
Warwickshire	169
Durham	167
West Riding (with York)	164
Nottinghamshire	164
West Riding	163
South Wales	163
Northumberland	162
Leicestershire	159
London	158

Weighty Opinion.

Sir Walter Foster pointed out at this meeting that the St. Mary's Ward, at Birmingham, which he knew well, was one in which the poorest people dwelt in the poorest houses. The subject was largely one of administration. If medical relief by boards of guardians were given more promptly, much good would result. The subject should have been attended to 25 years ago.

Dr. Ambrose Thompson drew attention to the fact that the Local Government Board did not fully use the powers possessed by it.

Sir John Gorst stated that the report on Physical Deterioration already dealt in a large measure with the subject, and something more than another report was needed.

Dr. Hutchinson said that steps should be taken to secure a clear statement of the powers already in the hands of local authorities and the Local Government Board.

Mr. Charles Fenwick said that many councils had prepared valuable reports, and since had opened municipal milk depots for the sale of specially-prepared milk for infants.

Alderman Thompson (Chairman, National Housing Reform Council) said that the excessive infantile mortality in certain localities was accepted almost without protest by local and central authorities alike as the normal condition of things. It should, however, be looked upon as evidence of such an exceptional and dangerous state of affairs as to call for special local inquiry and action. He strongly urged the desirability of holding Local Government Board inquiries in the districts having the highest rates of infantile mortality.

Sub-Committeee Appointed.

The following resolution was passed:—

"That the following be appointed a sub-committee from this meeting to prepare a statement of the powers possessed by local authorities under existing Acts with regard to the prevention of infantile mortality, and to invite the co-operation of certain societies interested in this subject: Sir Walter Foster, Dr. Hutchinson, Sir John Gorst, Mr. Herbert Samuel, Sir J. Batty Tuke, Mr. Thos. Burt, Mr. C. Fenwick, Mr. John Johnson, together with Alderman Thompson and Mr. Henry R. Aldridge (Secretary)."

This statement will be submitted to a meeting of those members of Parliament present at Wednesday's meeting, and a deputation appointed to wait upon the President of the Local Government Board.

The powers already in the hands of local authorities are so valuable that we are sure the above-named committee will be doing a valuable service in preparing a clear statement of what can be done to-day. The way will be made clearer for further powers, if we can secure the administration of those powers we already have ready to our hands.

OPENING OF STREETS BY PUBLIC COMPANIES.

THE Metropolitan Paving Committee, which was appointed by the City Corporation and the Metropolitan Borough Councils, at the suggestion of a conference of delegates from local authorities held at the Westminster City Hall, in the early part of 1903, has issued invitations to the authorities mentioned to a conference to be held at the Westminster City Hall, W.C., on the 19th May next, at five p.m., for the purpose of considering the question of the opening of the streets by the Postmaster-General and public companies, with a view to taking steps to obtain further powers for the protection of traders and the public generally.

The Committee states that the interference by the Postmaster-General and public companies with the streets has become notorious for its extent and frequency, and is accentuated by a total disregard of the public convenience, and by the serious damage, in some cases of a lasting nature, done to street paving, in many instances immediately after new paving works have been carried out.

Official Advertisements.

ST. PANCRAS BOROUGH COUNCIL.

THE Council require the following Officers:—

CLERK in the Town Clerk's Department. Age 21 to 35 years. Salary £100 per annum, increasing £10 annually to a maximum of £120 per annum. Preference to be given to one who has had experience in a printing office, and who is a good shorthand writer and typist.

THREE JUNIOR CLERKS. Ages, 18 to 21 years. Salary in each case, £50 per annum, increasing £5 annually to a maximum of £80 per annum. One of the officers is required for the Town Clerk's Department, and preference will be given to a good shorthand writer and typist. The two other officers are required for the Borough Treasurer's Department, and preference will be given to candidates who have obtained experience in an accountant's office.

BOY CLERK. Age 14 to 16 years. Salary, 10s. per week, increasing by annual instalments to a maximum of £60 per annum.

Selected candidates will have to pass a medical examination. Personal canvassing will disqualify. Applications to be made on forms, which contain all further particulars as to duties, &c., to be obtained of the undersigned, to whom all applications must be delivered not later than 4 o'clock p.m. on Wednesday, the 19th April, 1905.

No Superannuation allowances.

By order.
C. H. F. BARRETT,
Town Clerk.

Town Hall,
Pancras Road, N.W.,
6th April, 1905.

METROPOLITAN WATER BOARD.

APPOINTMENT OF ASSISTANT COMMITTEE CLERK.

THE Metropolitan Water Board are prepared to receive applications for the APPOINTMENT of an ASSISTANT COMMITTEE CLERK in the Department of the Clerk of the Board, at a commencing salary of £140 a year.

Applicants must have had experience in committee work in a Municipal or other public office.

Applications must be made upon special forms, which may be obtained by sending a stamped addressed foolscap envelope to the undersigned, endorsed, "Application Form."

The applications must be delivered not later than 12 o'clock noon on Saturday, 29th April, 1905.

Personal canvassing is strictly prohibited, and will disqualify candidates.

A. B. PILLING,
Clerk of the Board.

Savoy Court,
Strand, W.C.,
8th April, 1905.

RHONDDA URBAN DISTRICT COUNCIL.

APPOINTMENT OF DIRECTOR OF EDUCATION.

THE Education Committee of the Rhondda Urban District Council invite applications for the office of DIRECTOR OF EDUCATION. The person appointed will be required to devote the whole of his time to the duties of the office, and to reside within the area of the Council. The salary will be £400 per annum. Candidates must have had actual experience in similar positions, and in practical teaching, as well as in the performance of the several duties set out in the Council's prescribed list. Applications, marked, "Appointment of Director of Education," accompanied by not more than three testimonials, to be delivered to the undersigned, from whom a list of the duties can be obtained, on or before Monday, the 1st day of May, 1905.

Canvassing, directly or indirectly, is prohibited, and will be a disqualification.

W. P. NICHOLAS,
Clerk of the Council.

Public Offices,
Pentre, Glam.,
8th April, 1905.

EASTER HOLIDAYS.

The "Municipal Journal" will be published on Thursday morning next, at the usual hour, instead of on Friday.

BRITANNIC ASSURANCE COMPANY, Ltd.

(formerly called British Workman's and General).

Established 1866.

INDUSTRIAL & ORDINARY BRANCHES.

ANNUAL INCOME	at rate of	£1,000,000
RESERVE FUNDS	nearly	£1,400,000
CLAIMS PAID		£4,300,000

Gentlemen able to influence good business will find the Company's Agency Terms very remunerative. Agency Terms and Prospectuses on application to

S. J. PORT, Secretary.

Chief Offices: Broad Street Corner, Birmingham.

EAGLE INSURANCE COMPANY.

(Established 1807)

LIVES.
ANNUITIES.

Head Office: 79, PALL MALL, LONDON, S.W.
CITY: 41, Threadneedle Street, E.C.
Branches: Eagle Insurance Buildings in BIRMINGHAM, BRISTOL, LEEDS, MANCHESTER.

The **Surplus** disclosed at the Valuation (1902) produced an average **Cash Bonus** of 30 per cent. of the Premiums paid during the Quinquennium; being a return of one and a half Premiums.

The Company's **Debenture Policies**, with **Guaranteed Benefits**, afford an attractive form of Insurance in the Non-Participating Class, at very moderate rates.

Apply for XXth Century Prospectus, showing Simple and Liberal Conditions.

THE SANITARY INSTITUTE.

EXAMINATIONS IN SANITARY KNOWLEDGE.

In SANITARY SCIENCE as applied to Buildings and Public Works, and for INSPECTORS OF NUISANCES (under the Public Health Act, 1875).

In London, on MAY 5th and 6th, 1905.

The last day for receiving applications is April 22nd, 1905.

for INSPECTORS OF MEAT and OTHER FOODS.

In London, on MAY 12th and 13th, 1905.

The last day for receiving applications is April 29th, 1905.

Forms of application and full particulars can be obtained at the Offices of the Institute, Margaret Street, London, W.

E. WHITE WALLIS, Secretary.

AGENTS REQUIRED in unrepresented districts for the Imperial Accident, Live Stock, and General Insurance Co., Ltd. Estd. 1878. Departments: — Personal Accidents, Carriage and Drivers' Accidents. Horse and Cattle Insurance. Claims paid £300,000. Address Mr. B. S. Essex, Manager, 17, Pall Mall East, London, S.W.

YOUNG married man, 30 years, life abstainer and non-smoker, with good business capabilities, is seeking an appointment, under a Municipal Authority, as buyer, storekeeper, inspector, or other such position. Excellent references.—G. J. A. B., 79, Skeffington Road, East Ham, E.

WANTED, a position as Assistant or Storekeeper, by an Army Reservist. Age 35. Life long abstainer. Can be well recommended. Trial not objected to. —Apply, C. C., "Municipal Journal" Office, 12, Salisbury Square, E.C.

A FACT FOR ADVERTISERS.

STRIKING SUCCESS

OF THE

ENLARGED SERIES

OF THE

MUNICIPAL JOURNAL.

The GUARANTEED BONA-FIDE SALES of the Municipal Journal for the first Four Weeks of March,

1905,

EXCEEDED BY

3,888 copies

the sales for the corresponding period in

1904.

"THE SCHOOL MANAGER."

A WEEKLY NEWSPAPER

FOR

EDUCATIONAL ADMINISTRATORS

ONE PENNY WEEKLY.

Indispensable to Members of Municipal and County Councils and especially to Members of Educational Committees.

SUPPLIED BY ANY NEWSAGENT.

"I consider it a marvellous educational pennyworth that ought to be in the hands of every educational authority in the country."—Chairman of a Tyneside Education Committee.

"I am doing all I can to push **The School Manager**, which has more real, live news in it than any other paper."—Secretary of a County Borough Education Committee.

5 & 6, Johnson's Court, Fleet Street, LONDON, E.C.

Demy 8vo, Cloth Boards, price 5s. net, post free.

RATEABLE MACHINERY

By GEORGE WASTALL, F.S.S., Rating Surveyor, &c.

Invaluable as a work of reference to Rating Authorities, Guardians of the Poor, County and Borough Councils, Railway, Tramway, Electric Lighting, Gas and Water Companies, Solicitors, Surveyors, Auctioneers Manufacturers, and all users of machinery.

London: Philip Allen & Co., 87, Chancery Lane, W.C.

The Children's Breakfast.

Creamy Plasmon Oats

Require No Milk. Cooked in 4 minutes.

INFANTILE MORTALITY

AND

INFANTS MILK DEPOTS

BY

G. F. McCLEARY, M.D.,

Medical Officer of Health of the Metropolitan Borough of Battersea.

Crown 8vo, cloth, with 27 full-page Plates,

6s. net.

Glasgow Herald.—"This is a book which we could well wish to see in the hands of every Medical Officer of Health."

Nottingham Guardian.—"The facts and figures presented in Mr. McCleary's opening chapters, and his volume, which contains a number of illustrations, is deserving of very careful study on the part of public authorities and others."

Spectator.—"A very valuable book."

P. S. KING & SON,
ORCHARD HOUSE, WESTMINSTER.

The Cream of Cocoas.

EPPS'S

Contains all the nutriment

COCOA

of the Choicest Nibs.

TO SUBSCRIBERS.

REVISED SUBSCRIPTION RATES for the New and Enlarged Series of the "Municipal Journal" (commenced 3rd March).

For the United Kingdom.
Post free.

Three Months	2s.	5d.
Six Months	4s.	9d.
Twelve Months	9s.	6d.

Abroad.

Six Months	6s.	6d.
Twelve Months	13s.	0d.

Cheques and Postal Orders to be made payable to Edward Lloyd, Limited, 12, Salisbury-square, London, E.C., and crossed London and "Westminster Bank."

MUNICIPAL JOURNAL

FRIDAY, APRIL 14, 1905.

Notes and Comments.

Holborn and Audit.

The Holborn scandals have resulted in the conviction of the ex-Town Clerk, and councillors who for years past have taken insufficient interest in the real business which they were elected to conduct, are now busying themselves with a reorganisation scheme. Their energy is a little belated, but if they have really made up their minds to act independently, and not as the instruments of officials, no one will be more gratified than ourselves and the ratepayers of Holborn. The district auditor is now dealing very thoroughly with the Council's accounts. In a report submitted this week, he deals with further irregularities, and makes suggestions for better book-keeping and checking in the future. He says, amongst other things :—

> In view of the serious nature of the matters which have been disclosed, I assume that it will be the desire of the Council to institute, for every branch of their accounts, as sound a system as experience can devise; and, in order to render what assistance I can towards this end, I add a statement of the amendments which, in my opinion, are needed to bring the account-keeping and the checking of monetary transactions of the several officers, to a high standard of efficiency.

Then follow numerous suggestions. He points out the defectiveness of money accounts. For instance, in the cost and store accounts of the surveyor's office, he says :—

> No attempt has yet been made to balance these store and cost accounts with one another, or with the central accounts of the Council's expenditure. . . . Thus we lose the best check upon the correctness of the charges for material supplied, and the waste or misuse of stores. It is obvious, also, that the statements of the cost of works which are supplied to the Council are of an irresponsible character, seeing that they do not prove their own completeness or correctness.

It is good that the district auditor has made these discoveries now; we must not forget that in his previous report, published February 16th, 1904, he said :—

> The accounts in general have been found to be very accurate. The chief accountant appears to fully appreciate the principles upon which the Council's chief accounts can best be prepared and presented.

This is the district auditor's fourth audit, and at the time when every one of them took place the town clerk had large sums of the ratepayers' money in his pocket. We do not suggest that this shows any incompetence on the part of the district auditor. He has only been pursuing the same system that other Local Government auditors have adopted, but the result shows, as opponents of municipal progress are so anxious to enlarge on, that the audit is no test of the accuracy of the accounts, nor is it any check on dishonest officials.

The Comments of the "Times."

The *Times* is always interesting when it deals with municipal affairs, and in the Holborn case it laid part of the blame upon the [audit, the inadequacy of which it appeared to think was due to municipal opposition to reform. The *Times*, of course, is wrong. It is not the municipalities, but the Government, through the Local Government Board, that is responsible for the delay in applying a proper audit system. The Joint Select Committee on Municipal Trading condemned the Local Government Board audit, and recommended a professional audit such as has already been adopted by many of the great provincial corporations, as many people think, illegally. The municipalities generally have expressed themselves favourable to the Select Committee's audit, which the Local Government Board refuses to accept on the ground that it will curtail its authority. This departmental opposition is the principal reason for the Government's inactivity. So that the *Times* fails to draw the real moral of this squalid business, which is, that the application of an efficient audit system is being opposed by the Government, and not by the municipalities. Being a non-political organ, our object in recalling these facts is not, of course, to secure a party advantage. But they must be insisted upon as often as possible, in order to show that the blame for the present position of affairs does not lie with the municipalities.

"The Rise in Rates."

The scandals at Holborn, and the inevitable increase of rates in the poor districts of London and the crowded cities and towns of the provinces, have given reactionary publications that are fed by the Industrial Freedom League and other representatives of the company interests an opportunity they have not been slow to take advantage of. Never before have certain London papers so perverted statistics and misstated facts as they have during the last few days. The average ratepayer condemns those who are responsible for his increasing demand note without stopping to inquire what are the causes of that increase, and as a rule he will not listen to a statement explaining what those causes are, nor will he consider their true economic bearings. It is to this individual that the calumnious campaign of the last few weeks has appealed. We have been flooded with denunciation, generally ended by the lesson that there shall be no more "municipal trading" (which relieves rates), and that companies shall be allowed to vote (for the transference to themselves of municipal reproductive enterprises). Mr. Benn, with excellent tactics, raised the question in Parliament, and asked the Prime Minister whether, "in view of the rise in the rates levied by the borough councils of London, especially in poorer districts, he would cause an inquiry to be held into the cause or need of this increase, and the possibility of further equalising the burden over the whole of London." Mr. Balfour failed to rise. Nobody knows better than the Prime Minister the realities that lie below the rates increase. Nobody knows better than he that the defects of the rating system, and not municipal trading, are the evils with which we have to grapple. And nobody is less desirous than he, judging by his attitude on the Taxation of Land Values Bill, of applying the true remedies. Mr Balfour's reply was that he was "informed that the considerable rise in the rates which has taken place in the county of London is being inquired into by the Local Government Board. Legislation would be required to carry out the suggestion of the hon. gentleman." Asked by Sir George Bartley whether any steps were to be taken, by legislation or otherwise, "to prevent the enormous borrowing that was going on," Mr. Balfour replied :—

> No, sir, I do not think it would be possible by legislation to prevent that; at any rate, no scheme for preventing it has ever been brought to my notice. This, like other questions connected with local finance, must in the last resort be left to the good sense and discretion of the ratepayers. If the ratepayers do not pay attention to their duties, no doubt not only considerable local, but national, inconvenience will arise.

Thus, whilst outside the reactionary newspapers are working up a violent campaign against municipal enterprise,

in the House of Commons the Prime Minister makes a statement which practically marks the collapse of the Parliamentary movement designed to impose "limits" upon "trading."

Taxation of Land Values.

IN the House of Commons to-night (Friday) a Bill is coming on for second reading that will give the newspapers and the politicians a chance of showing whether their concern for the ratepayer in this matter is real or assumed. The measure is the Bill for the Taxation of Land Values, which is the outcome of a conference of municipalities representing 150 authorities and against which no local authority has made a definite declaration. The Bill is on the same lines as that read a second time on March 11, 1904, by 223 votes to 156, and is to provide that in the case of undeveloped property the real selling value of the land shall he the basis of its local taxation; that land values shall he rated separately from buildings at 3 per cent. on the selling value, and that unoccupied premises shall be subject to rating on that value. In any case where the land value of premises exceeds the present rateable value, which may happen where land ripe for building is not used for building, or very poor buildings are allowed to stand on valuable sites, rates are to be paid on the land value. Under any lease made after the Bill becomes law, the occupier will he entitled to deduct from his rent so much of any rate as is based on the amount of the land value; but there is to be no interference with existing contracts between landlord and tenant. It is also proposed that deductions made from the gross value for the purpose of arriving at the rateable value shall be made on the value of the huildings only, and not on the land value. The Bill applies only to London and provincial boroughs and urban districts of England and Wales. As was pointed out in our last week's issue hy a correspondent the immediate effect of the operation of this measure in Finchley would be to reduce the rates from 8s. 2d. to 6s. 3d. in the £. Here is a practical remedy for the "rise in rates," but what do we find? The very men in the House of Commons who are loudest in their condemnation of "municipal extravagance," and who prate about their sympathy for the poor over-burdened ratepayer, have given notice of amendments that either shelve the whole question, or defeat this particular measure. And we have no doubt that those newspapers which have been responsible for the present agitation will join in the chorus.

Pity the B.E.T. Co.

WHAT is happening to the B.E.T. Co.? It has been shedding some of its properties recently, and has stopped its aggressive policy. This week, it is announced that its two great companies in the North—the County of Durham Electrical Power Distribution Company and the County of Durham Electric Power Supply Company—are transferred to the Newcastle Electric Supply Company. The Durham Power Company was the first ambitious scheme which the B.E.T. Co. launched. Investors and others were told that the combination of the Power and the Distribution Companies, the electric lighting rights in Durham, Jarrow, and other towns in the county, together with the tramway powers, formed a combination which for commercial economy and efficiency could not be surpassed. We never accepted these optimistic statements of the B.E.T. Co., and we questioned the ahility of its directors to manage the undertakings efficiently. The results up to now have justified our criticism: the prospectus issued this week confirms it. For instance, it is explained that the interests of the distribution and the power companies are "identical," heing controlled from London hy the B.E.T. Co. The prospectus goes on to say that, in order that the business may be carried on "on an extensive and economical scale" . . . "it is desirahle that the undertaking should be under local management." This confession is a condemnation of the whole B.E.T. Co. system, which is controlled hy an oligarchy in London, the local directors heing generally dummies. The prospectus also states, "It has also been agreed that the experienced staff of the Newcastle Company shall he available for dealing with the commercial development of the undertaking in the county of Durham, which arrangement must be attended with economical results." This means that, up to now, the experienced staff of the B.E.T. Co. left very much to be desired. It is also shown that, but for the assistance of the Newcastle Company, in supplying current, the B.E.T. Co. concerns would have done less business than they have in the past. The nett result of the amalgamation this week is to consolidate the electric monopoly in the county of Durham; and all these promotions and amalgamations which take place also add to the dead weight of watered capital which the companies have to carry, which means, in the end, increased charges to the public.

Power Company and Ossett.

THE various circulars with which the assiduous representatives of the Yorkshire Power Company have attempted to influence Ossett councillors have failed to produce the desired effect. By a majority of nine votes, the Town Council has decided to establish its own generating station, thus rendering it independent of the Power Company's monopoly. The company was very anxious to controvert our criticisms of its latest circular. It was, we admit, an ingenious document, capahle of many interpretations. To that degree it doubtless served the purposes of the company. The latter says that our criticisms were directed against statements that were not made, a retort which answers nothing. On one point, however, the engineer to the company ingeniously shirks the question:—

> The question whether large or small machines become obsolete the sooner is, however, beside the point, for if the machinery which becomes obsolete does not belong to the local authority, they are relieved from the burden of replacing it.

Does the engineer to the Power Company seriously contend that if all electrical machinery became obsolete tomorrow there would be no change in the price of current *to consumers*, so long as they took their supply from a company? And the local authority represents the consumers, which is where it differs from the Power Company, representing only its directors and shareholders. The engineer to the company produces a statement made in an issue of last year to the effect that large stations are more economical than small ones. Ossett is starting in a small way, hut it hopes to eventually blossom forth into a big concern. It might, in course of time, even effect a combination for electricity supply purposes with adjacent municipal authorities, to their mutual advantage. But in that case the monopoly would rest with the local bodies, and not with a company, which is the vital point.

Official Advertisements.

CORPORATION OF GLASGOW.

POLICE DEPARTMENT.

GLASGOW MAIN DRAINAGE.

SOUTHERN SECTION.

THE Corporation invite TENDERS for the Work necessary in the CONSTRUCTION of SEWER No. 4 (Contract No. 2) extending from McNeil Street, near Govan Street, to Rutherglen Road, about 25 yards east of Polmadie Burn. The Work will include Construction of Sewer from 5 feet 6 inches internal diameter to 4 feet internal diameter for a length of about 1,473 yards, about one-half of which will be constructed in Iron Tunnel, and the remainder in Open Cutting in Richmond Park, and will include a Small Bridge carrying the sewer over Polmadie Burn.

Plans, Specifications, and Working Drawings may be seen, and Specifications and Schedules of Quantities and Forms obtained on application to the City Engineer, at his office, City Chambers, 64, Cochrane Street, Glasgow, on payment of a fee of £5 5s., which will be refunded to each applicant who sends in a bona-fide Tender.

Sealed offers, marked outside, "Tender for Sewer No. 4—Contract No. 2," must be lodged with the Subscriber not later than 10 o'clock a.m. on Tuesday, 2nd May next.

The lowest or any offer may not be accepted.

The Resident Engineer will meet intending offerers at the corner of Govan Street and McNeil Street at 11 o'clock on Tuesday, 18th April.

JOHN BOWERS,
Town Clerk.

City Chambers, Glasgow,
7th April, 1905.

TO MUNICIPAL AUTHORITIES.

First-class Orchestras, Military Bands, and Concert Parties provided *at minimum rates* for every kind of function, or for Season.

J. HERBERT JAY,
10 & 11, Jermyn Street, Piccadilly.
Telephone—6534 Gerrard.

ROUND THE UNIONS.—III.

The Extra-Metropolitan Union of Richmond, Surrey, though Comparatively Small Has Many Lessons to Teach. Extensive and Many-sided Work Amongst the Children. A Unique Barrack-School-Cottage-Home. A New and Up-to-Date Infirmary. The Casual and a Simple Way of Reducing His Numbers.

"THIS workhouse was erected by the munificence of His Majesty, George III., for the use of the poor of Richmond and Kew, 1786."

This inscription is still decipherable amongst the ivy, under the clock tower of the old Richmond workhouse on the hill. Here is a connecting link with the workhouse administration of the past—of the time of Mr. and Mrs. Bumble! On every side of this old building, with its picturesque eaves, are signs of the advance of the modern humanitarian spirit. The old building has been greatly enlarged and improved. Near it stand a splendid new infirmary, one of the most up-to-date in England, nurses' home, &c. Many other improvements have been made which are not expressed in workhouse buildings. The scheme of remodelling, sanctioned by the Local Government Board eight years ago, was completed at the commencement of this year by the opening of a splendid dining-hall and laundry, which had cost £21,000.

Embraced in this scheme was a project for building a new Board Room and clerks' offices. It is a somewhat remarkable fact that the Richmond Guardians have never had clerks' offices of their own, but have always been dependent upon their successive clerks. Mr. William Chapman was the first clerk, when the union was formed in 1836, and he continued to hold office until his death in 1874, when he was succeeded by his partner, Mr. A. J. Wood. Mr. Wood continued as clerk until November, 1900, when he died, having previously taken into partnership Mr. Percy Umney, M.A., Cantab, solicitor, who succeeds him as clerk.

These new Board room and offices were to have been on the workhouse estate, but it was felt that the climb up the hill would have deterred some from the Board and committee meetings. Consent was obtained from the Local Government Board to alter the arrangement, and the Board room, offices, and committee rooms are now being built on a site facing the main line station, at a total estimated cost of £9,000 (including site). Messrs. F. Speechley and Smith, Richmond, are the contractors for this building.

These expansions are indispensably necessary. In common with other extra-metropolitan unions, work in connection with the relief of the poor is growing rapidly. Expenditure on in-maintenance and out-door relief, excluding insane poor in lunatic asylums, was £5,910 for year ended Michaelmas, 1895. This amount had increased to £8,908 for the year ended Michaelmas, 1904. For in-maintenance the figures had increased from £4,749 to £6,235, and for out-door relief from £1,161 to £2,444. It will thus be seen that the expenditure on out-door relief is increasing much more rapidly than the expenditure on in-maintenance.

Population is increasing very rapidly in two of the six parishes that are embraced in the union—Barnes and Mortlake. In Petersham and Richmond the population is almost stationary.

The Guardians have had a considerable trouble with the casuals. The union is so closely situated to London that it gets an abnormal number of tramps, who, no doubt, in the past have been attracted by the fact that they have been given little work to do. It is found impossible by the Guardians in the accommodation at their disposal to keep these undesirables employed on a full day's work. This soon became known to the fraternity, by that quick means of communication which shames the printing press, and they climbed the hill to the Richmond workhouse in hordes. For purposes of self-protection, the Guardians had a board printed, "House Full," or words to that effect, which they exhibit conspicuously when accommodation in the casual wards is taken up. This has had a marked effect. Many of the tramps, finding they had thus been "moved on," did not care to risk a second refusal, and the number of casuals applying for shelter has suddenly dropped since the printing of that board.

The question of providing relief works for the unemployed was brought up in Richmond some three months ago, and certain burgesses approached the Town Council, and urged that some such steps be taken as were taken by Mr. Long's Central Unemployed Committee for London. The Town Council refused, and the matter was adjourned. In the meanwhile the same burgesses made application to the Guardians, who convened a preliminary meeting, which was held at the workhouse, and to which they invited representatives from various bodies within the union, officers of friendly societies, philanthropical, and charitable societies, &c. As a result of their labours, a committee has been formed in Richmond, and, though now happily not needed, will be ready to start work next winter if necessity demand, on the lines laid down by Mr. Long.

Eighteen months ago the Richmond Guardians started the scattered home system for the children under their care, but so early as 1895 a move was made to take the children out of the workhouse. On the motion of Miss Foster Newton, who, during seventeen years, has done such valuable work on the Board, especially amongst the children, a house to accommodate thirty children was taken in Barnes. This might be described as a compromise between a cottage home and a barrack school, and after some six years of not unuseful work, this unique building was closed. The Guardians now possess two scattered homes, and a receiving-house.

The two plans of dealing with Poor Law children which the Schools and Boarding-Out Committee much prefer, are the boarding-out of young children with respectable families and placing them in the small voluntary homes certified by the Local Government Board, but carried on by voluntary committees of ladies and gentlemen untrammelled by Poor Law Orders as to management, and independent of outside authority in regard to monetary outlay. These two plans can only touch a very limited number of children, however, and it is felt that the scattered home system should be developed and include: (1) a receiving-house; (2), a home for boys over eight years of age; (3), a home for "ins and outs"; (4), homes (as required) for

more permanent children, and (5), an isolation cottage. But the committee at present urges only the immediate provision of 2 and 5, in addition to the existing accommodation. The Guardians are also firm believers in emigration for suitable children, and we have before us some very good reports, dated, Toronto, 21st February, 1905, of boys emigrated to Canada from the

INFIRMARY AND DINING HALL BLOCKS.

Richmond Union under Dr. Barnardo's auspices.

A few main facts about the new and up-to-date infirmary buildings should be of interest to other unions. It may be remembered that when these buildings were opened two years ago, one of the lady guardians (Miss Foster Newton) slept a night in the open phthisical wards in March, when there was 3deg. of frost on the ground. This practical demonstration, however, has not had the desired effect of instilling a love for this open-air sleeping amongst the patients, for we understand the wards are still very little used. The new buildings, which have cost £35,000, included in the contract of Messrs. S. N. Soole and Son, Richmond, comprise six separate buildings—female infirmary block, lying-in ward, nurses' home, male infirmary, lunatic wards, and ambulance house and mortuary. The five blocks used for habitation are arranged so that they each run longitudinally N.E. and S.W., and by this means the rays of the sun are enabled to shine during some part of the day on every side of each building—a very potent factor in obtaining cheerful and healthy apartments. With the object of increased facility in superintendence, the female and male infirmary blocks are connected on each floor by corridors, from which short branches connect to the lying-in ward and nurses' home.

Along the centre of the ground floor main corridor the various mains, such as river water main for fire hydrant supplies, the drinking-water main, down service main, electric light main, &c., are placed in a trench. If a modification of such an arrangement as this were adopted by municipal and other public bodies, much breaking up of roads and consequent discomfort and inconvenience in our public streets would be avoided.

The female block comprises ground, first and second floors, each containing a large ward which provides for twenty-four beds, a smaller ward containing three beds, a day room and duty room, besides larder, linen store, brush store, and the necessary sanitary accommodation.

The duty room is so placed as to be approached direct from the landing, and at the same time immediately adjoining the large ward, from which it is divided by a wall in which is placed a small window for supervision purposes. This duty room is independent of other parts of the house except for general cooking purposes. Opening off the same landing is a three-bed ward used for separation purposes. Separate access to a twenty-four-bed ward is obtained by folding doors from the landing at one end, and at the other opens on to an external balcony.

In arranging a building of this description it was necessary to provide a second means of exit in case of fire, and the architect has, in complying with this, gone somewhat further, and in connection with the iron external staircase has formed a balcony along the whole of one side of this large ward. This is of great benefit to those inmates who are sufficiently recovered from illness to take fresh air, but owing to their inability to descend or ascend stairs would otherwise be precluded from enjoying it, and the placing of this balcony with a S.E. aspect still more increases the comfort of its use. In the ward, the floor of which is laid with pitch pine blocks, wax polished, there are two independent stoves with descending flues. By this means the cheerful aspect of an open fire is obtained, and no unsightly smoke stack rises to interrupt the vision. The warmth obtained from these stoves is supplemented by hot water radiators, so that a more general and equable temperature is obtained than if large central stoves only were used. The walls are plastered, and the junctions between the floor and wall, which are so difficult to keep clear of dust, are formed with a slight hollow, so that no corners are left, and perfect cleansing can be readily performed.

The day room is a cheerful room, 20ft. in length, with a bay window at one end, and opens off the same landing. The lying-in ward accommodates six beds, two labour rooms, duty room, larder, bath-room, and store. The nurses' home, placed between the lying-in ward and the male infirmary, consists of three floors. The general arrangement on each floor is a central passage or corridor, with the various rooms opening directly from it, and by placing the internal staircase at the end farthest from the corridor, the architect has met the necessity for a secondary means of exit in case of fire, without having to provide a separate stairway for this purpose only. The male infirmary is similar in design to the female infirmary. The fifth block is that provided for the reception of lunatics, and as happily such persons cannot permanently be retained in the workhouse, the accommodation is not extensive. It consists of a ground floor only, and comprises two separate two-bed wards, with attendants' room adjoining each, fitted with supervision window. There is also a padded room provided. The sixth building is the ambulance house and mortuary. The buildings are erected in stock brickwork, with brick facings of a rich, red colour, relieved with lintels and strings of Portland stone, and the roofs are covered with green slates. The corridors and lobbies are finished with Terrazzo paving. Floors were laid by the Acme Wood Flooring Company; lavatory fittings were by Messrs. Doulton and Company, and corridor work by the St. Pancras Iron Company. The new dining-hall block, besides the spacious dining-hall, comprises a kitchen, laundry, and various stores, workhouse master clerk's office, and male officers mess room. Messrs. W. Summerscales & Sons, Keighley, are responsible for the laundry machinery, which is on most up-to-date lines.

A WARD IN THE INFIRMARY.

We express our obligations to Miss Foster Newton; Mr. F. W. Dimblely, J.P., formerly Vice-President of the Poor Law Unions Association (who, we regret, was thrown at the poll as a Richmond Guardian a year ago); to the Clerk to the Guardians (Mr. P. Umney, M.A.); to the retiring workhouse master (Mr. Frederick W. H. Axten); and Mr. E. J. Partridge, F.S.I., Bank Chambers, Richmond, S.W., and 50, Lincoln's Inn Fields, W.C., architect of the new buildings, and others, for their kind assistance in supplying us with information for the purposes of this article.

POOR LAW NOTES.

Appointment of Guardians to Offices.

AT a very opportune moment the question of guardians appointing themselves to offices is once more being pressed forward by the Newcastle-upon-Tyne Ratepayers' Association. We understand officially that, with a view of giving effect to public opinion respecting the appointment of members of boards of guardians to offices at the disposal of such boards, this Association has resolved that all candidates for election as members of boards of guardians be asked to propose, or if proposed by any other member, to second, or support an addition to the standing orders of the board to which he may be elected:—

"That no person who has been a guardian for the past twelve months shall be eligible for any post under the board." In order that similar associations could take similar action, it was decided that a copy of this resolution be sent to the MUNICIPAL JOURNAL for publication."

We have had to draw attention to this matter more than once, in connection with the proceedings of boards of guardians, and we quite endorse the terms of this resolution. The majority of boards of guardians will feel the necessity of being above suspicion in this regard.

Present Day Problems.

WE are requested to state that the Committee of the Central Poor Law Conference suggests the following subjects for discussion at the District Poor Law Conferences during the year:—(1), The Government Valuation Bill; (2), the Law of Settlement and Removal; (3), Nursing in Small Workhouses; (4), the Administration of Union Infirmaries; (5), Maintenance by Relatives; (6), the Extension of Powers of Detention; (7), Dietaries and Accommodation of Indoor Officers; (8), the Need of Departmental Inspection of Children Boarded-out within Unions; (9), the Working of the Infant Life Protection Act and Necessary Reforms thereof; (10), Cottage Homes for Children. Most of these are what may be called burning subjects. It should be mentioned that, in regard to the first, the Chairman and Hon. Secretary of the Central Committee have power to call a special conference for consideration of either the unemployed question or the Valuation Bill, or both, if they deem it necessary. The consideration of the question of the law of settlement and removal is with special reference to divided parishes. The advisability of extending powers of detention of certain classes of inmates in our workhouses is a matter which is now being urged before the Royal Commission on the Feeble-Minded. We think a useful addition to this list would be the Extension of the Emigration of State Children, which is a subject of paramount importance.

Bad Boys and the M.A.B.'s New Rule.

THE City of London Union has taken up the matter of the Metropolitan Asylums Board's new rule, that boys of vicious habits will not be admitted to the Exmouth Training Ship, and on Tuesday the General Purposes Committee strongly recommended that the Guardians protest against the proposals of the managers of the Metropolitan Asylums Board, and that the Local Government Board be so informed. A month ago, after discussing the matter in these columns, from both the point of view of the Metropolitan Asylums Board and the general body of Guardians, we stated:—

"It may, we think, justifiably be argued against this new rule that if this class of boys cannot be managed by retired naval officers on board a training-ship, they will be less likely to meet their masters in, say, a cottage home under the care of a foster-mother."

This General Purposes Committee now reports that it has given this matter its full consideration, and holds that:—

"If the managers carry out their intentions and exclude boys who, though of vicious habits, have not been criminal, and therefore ineligible for a reformatory training ship, it will deprive boards of guardians of a most valuable aid in disciplinary and corrective measures for the development of a better moral character and tone."

Exactly! This committee's opinion will no doubt carry more weight than ours, and we trust the Metropolitan Asylums Board will see its way to withdraw the rule.

New Unemployed Legislation.

CREDIT where credit is due. The Social Democratic Federation is a little too sweeping in its statement to Mr. Balfour, in a letter through its secretary (Mr. H. W. Lee), published this week. It rightly presses for the promised legislation on the unemployed question, but bases the urgency "in view of the complete breakdown of Mr. Long's Central Committee." Such exaggerated vituperation does not help the cause which the social democrats have at heart. The excellent work being done at Hollesley Bay—outlined in another part of this issue—is alone proof that there was no "complete breakdown." The richer boroughs have not rallied to the call as they ought to have done, but good work has been, and is being done. Though not on the ground of a "complete breakdown," we can join issue with the Social Democratic Federation in pressing for the legislation promised in the King's Speech at the opening of Parliament, for which some of us are growing a little impatient.

Joint Scheme for Epileptic Colony.

WE noticed that it is being claimed that a scheme, under which the Birmingham, Aston, and King's Norton Board of Guardians will jointly assume charge of the poor epileptics and feeble-minded persons in their respective districts, is the first of the kind in the country. But this is ignoring the admirable work of the Chorlton and Manchester Boards of Guardians, who, more than two years ago, combined for the purpose of building a colony of this kind near Blackburn. A few days ago, the first meeting of this joint committee—rejoicing in the formidable title "the Birmingham, Aston, and King's Norton Poor Law Establishment Committee"—took place at the King's Norton Guardians, when the order of the Local Government Board, obtained after heart-breaking delay, and dated 27th March last, was presented by the clerk to the King's Norton Board (Mr. R. J. Curtis). The Local Government Board takes no cognisance of anything but a "workhouse." When Poplar got its labour colony, a year ago, through all the negotiations, long protracted, the Local Government Board always referred to it as a "workhouse." Similarly, this Order directs that the three parishes be combined "for the provision and maintenance of a workhouse or workhouses for the reception of epileptic and feeble-minded persons chargeable between the combined unions." When the Order was drafted it referred to the joint committee as the Joint Workhouse Committee, and the persons to be dealt with as "paupers," but, after negotiation, the Local Government Board was induced to amend the title to the Joint Poor Law Committee, and to eliminate the word "pauper," substituting "poor person" instead.

Objects Sought.

THE committee is now casting about for a suitable site on which to erect the necessary buildings. The first colony will be founded with 210 inmates, of which number Birmingham will contribute 110, Aston 50, and King's Norton 50. The capital and establishment charges will be divided in accordance with this proportion. The committee feels confident that the work it is about to undertake will prove of inestimable value to the patients to be treated, whilst not casting an undue burden upon the ratepayers. In a report prepared by Mr. Curtis on the subject, it is stated that "in such an institution as it is proposed to provide, it seems desirable that the epileptic, in their sane intervals, may not be associated with imbeciles; that the feeble-minded may not be in depressing contact with severe forms of disease, and that both may have such instruction and attention as may best be calculated to improve, if improvement is possible, and, if not, to render their lives as comfortable and as useful as possible. Especially is it advocated that for the young, whose improvement is most likely, everything that is possible should be done." In our issue of 19th August last, much further information was given in regard to the epileptic colony system, with an illustration showing the splendid new epileptic colony at Warford, Cheshire, built by the Lewis Trustees.

HEATING OF BUILDINGS & HOT WATER SUPPLY

FROM LIVE OR EXHAUST STEAM.

The Latest and Best Appliance is

ROW'S PATENT CALORIFIER

Combined with AUTOMATIC STEAM CONTROL (Royles' Patent)

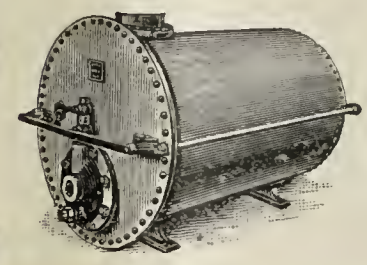
Adopted by the Metropolitan Asylums Board, London County Council, Manchester, Liverpool, Glasgow, Edinburgh Corporations, and others, for Bath Supply.

COPIOUS SUPPLY, UNIFORM TEMPERATURE.

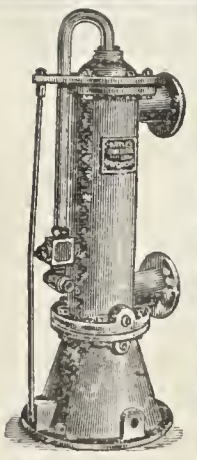
ROYLES LIMITED, IRLAM, near Manchester.

ALSO MANUFACTURERS OF

Feed Water Heaters, Condensers, Evaporators, Steam and Gas Kettles, Syphonia Steam Traps, Reducing Valves, Oil Separators, Exhaust Heads, Boiler Mountings, &c., &c. Price and full particulars on application.



Storage Calorifier for Baths.



Vertical Calorifier for Hot Water Circulaton.

NERNST ELECTRIC LAMP,

The Ideal Lamp for Street Lighting.

Patentees for U.K.: The A.E.G. English Mfg. Co., Ltd., 4/5, New Compton Street, London, W.C.

THE NATIONAL ELECTRIC CONSTRUCTION Co., LTD.,

ELECTRIC LIGHT, POWER & TRACTION ENGINEERS.

CONTRACTORS TO H.M. WAR OFFICE, OFFICE OF WORKS, GENERAL POST OFFICE, &c.

Head Office: 34, VICTORIA ST., WESTMINSTER, LONDON, S.W.

Telegraph Address: "OVERHAULED, LONDON." Telephone: No. 5134 GERRARD.

Complete Town Lighting Schemes carried out for :—

BO'NESS, N.B. MUSSELBURGH, N.B. (Tramways and Lighting). CARNARVON. HOLYHEAD. KILDARE (IRELAND).

Agreements Completed with the following Local Authorities :—

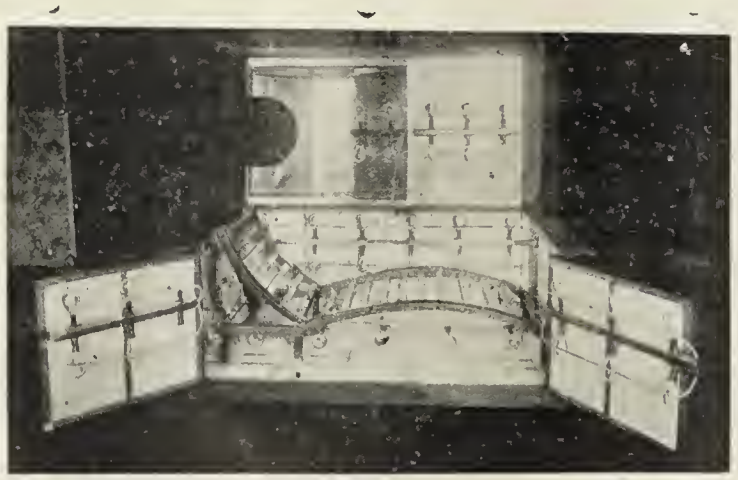
BASINGSTOKE, ORMSKIRK, PAIGNTON WISBECH.

The "SUNBEAM"

ELECTRIC LIGHT BATHS

FOR THE TREATMENT OF

GOUT, RHEUMATISM, SCIATICA, LUMBAGO, &c.



The "Sunbeam" Cabinet Bath has been specially designed for home use, and its construction is so simple that no attendant is needed, wherefore it can be recommended as the healthiest and simplest form of Domestic Turkish Bath.

The "Sunbeam" Electric Light Baths are very economical in use, owing to their low consumption of current. Taking 15 minutes as the average duration of a bath, the cost at 3d. per unit will be 1½d.

Semi-Reclining Bath, with 50 Incandescent Lamps	£36	0	0
Cabinet Bath	from £15	0	0
Portable Baths for local application	from £3	10	0
Electro-Vibrator for Massage	from £8	0	0

All Baths are made in London by the Manufacturer and Patentee,

C. M. HOLMQUIST,

From whom full particulars can be obtained and the Baths seen in operation at

57, EDGWARE ROAD, LONDON, W.

DIALITE

THE

STANDARD

CABLE

FOR ALL

PURPOSES.

THE ST. HELENS CABLE CO., Ltd.,

WARRINGTON.

ELECTRICITY SUPPLY.

Worcester: The Lessons it Teaches and the Lessons it Ought to Learn. The Alternating High Tension System Changed for Direct Current Works. The Vexed Question of "System." Taking From a Previous Year's Surplus to Relieve the General District Rate. Drawing on the Bank of Faith Does Not Indicate Careful Financial Management. Effects of Variation in Monthly Maxima Upon Turnover.

THE Worcester accounts have now been published for the year ending 31st December last. This is one of the pioneer undertakings for which the Brush Company supplied the then standard type of plant for supply upon the alternating high tension system, but owing to the demand for a traction system it was afterwards found necessary to lay down direct current works. The figures are, in consequence, of great interest to those who feel disposed to take a part in the controversy raging round the very vexed question of "system"—one that engineers have disposed of for good, but which is by no means settled in the case of municipal councillors. The truth is, that the engineer is a Progressive, not merely by nature, vocation, and by force of circumstances, but he is more or less a bird of passage, and there are few municipal electrical engineers holding responsible positions who have continuously occupied the same post for the past decade. During this period such advances have been made that the plant which was put down in stations established some ten years ago is to-day, if not obsolete, at least so uneconomical to operate, in comparison with that which can be purchased in the open market at this time, that no responsible official makes an effort to retain control of a works where the increase in output is so small that he is debarred from the chance of obtaining the modern types of generating machinery. The manufacturing engineer sees daily improvements in the apparatus he assists to design and construct. The councillor, on the other hand, has a hand in the management of works which, if ten years or so of age, probably contain plant which looks antiquated, and, most likely, is anything but economical. Instead of looking at the plant, he is apt to revert to the system, and to rush to the conclusion that a change of system would get his municipality out of its difficulties.

❦ ❦ ❦

Modern Plants and Results.

THIS phase of the question is most generally found where an alternating high-tension supply was given, and if the plant be old the frequency may be 100 periods per second, in consequence of which difficulty is often experienced with motors as a day-load becomes sought after. The good fortune of several of these undertakings has brought them a traction-load in recent years, and they have been enabled either to change over entirely (*e.g.*, Bolton) or to add a direct current supply, as in the case of Worcester. Credit may be given then to the system, whereas, if the truth be known, the accession of modern steam plant has probably more to do with the improved results. And then the benefit is not felt just at once. The engineering costs show up better, but the heavy increase in capital expenditure causes an inflation of the interest and sinking fund charges, and thus, for a time, the item commonly called in an analysis of such accounts the nett financial result is adversely affected. Thus, at Worcester, according to the summary given below, there was a deficiency on the year's working of £1,388, or, if the figures in the engineer's report be taken instead, £1,221. This was not wholly due, however, to the change. The water power auxiliary, which was expected to do so much for the old Powick works when they were started, has proved—like refuse destructors in more modern times—to be less of an advantage than was anticipated. Floods drowned out the turbines, and low water took the power away; in either case they were of no assistance, and the former cause last year meant an increase in the estimated loss of £551.

❦ ❦ ❦

Words of Criticism.

THE results as shown in the revenue account, are given in the following summary:—

The revenue derived from the sales of current amounted to		£14,154
And the working expenditure to		7,716
Leaving a gross profit of		£6,438
To this was added the balance brought forward from the previous year of		1,867
Making a total of		£8,305
Out of this sum the following requirements were met:—		
Dividends on stock and interest on loans	£3,744	
Sinking fund	3,047	
Instalments of debt repaid	868	
Remitted on 1903 account to tramways	167	
Total of capital and special charges		7,826
Balance upon year's accounts		£479
To credit of general rates	£400	
Balance carried forward	79	
Total as above	£479	

As will be seen, the balance from revenue account was £6,438, and to this was added a balance brought from last account of £1,867, making £8,305. There is also an item in the nett revenue account of "balance of profit from last year's account £1,300, *less* deficiency on nett revenue account £1,221," which gives the balance carried forward of £79. The sum of £400 applied to the general district rate has therefore been taken out of the surplus of the year 1903, in face of a deficiency upon last year's working. When Glasgow turned a surplus into a deficiency by charging depreciation in excess of such surplus against one year's accounts, there was something like an uproar amongst members of the accountancy profession in that city; but this is even worse policy, for the money handed over to the rates is a portion of a previous year's earnings, kept in hand during a period when a deficieney occurred, and then so applied. Truly, the argument that the deficiency is an accidental in the history of the undertaking is reasonable, but it does not indicate careful financial management to draw cheques on the Bank of Faith, in the sanguine hope that they will be duly honoured.

❦ ❦ ❦

Units Sold.

THE lack of water power not only increased the costs, but reduced the revenue, and there was a reduction of £337 in the earnings of the water works motors, representing the 40.310 units less supplied to them than in 1903. Motor power and day-load increased by 2.246 units, but owing to the smaller charges the receipts from these were only £4 in excess of the previous year.

Worcester.	Units.	Yielding	Per unit.
Private consumers took ..	530,738	£9,673	= 4·374d.
Public lamps consumed ...	147,619	1,705	= 2·772d.
First interim total... ...	678,357	£11,378	= 4·025d.
Traction sales amounted to	253,810	2,060	= 1·948d.
Second interim total ...	932,167	£13,438	= 3·460d.
Meter rentals...	—	288	= ·074d.
Sundry receipts	—	428	= ·110d.
Total revenue for year...	932,167	£14,154	= 3·644d.
Units sold on works	86,713	(The maximum load was 696 k.w., equal to a load-factor of 17·85 per cent.	
Total accounted for...	...1,018,880		
Utilised on distribution ...	182,769		
Total units generated	...1,201,649		

Increased Costs.

THE costs have been increased by 110,744 units less being generated at the old Powick works by water power, and the coal bill at that station was greater by £101 (total £1,960), and the total units were 85,000 less. The works costs increased by £1,850 on an addition of 246,181 units over 1903. These provincial undertakings seem to have reached a stage of semi-saturation in the districts of supply, and it will require some economies in the utilisation of electricity or large reductions in selling price before consumers can be taken on to the mains at the rate which was recorded in the early stages of such undertakings. Thus Worcester has connected thirty-eight new consumers and disconnected five, the increase in lamps for the year being 2,468. A favourable feature in the report is the reduction in the works costs of the new Hylton Road station by .45d. per unit, and the tramways only started a service on February 6, other sections following on April 20 and July 3.

	Amount.	Per unit.
Works' costs	£6,049	= 1·557d.
Rates, taxes, and management.	1,199	= ·309d.
Total cost	£7,248	= 1·866d.
Public lamp maintenance ...	468	= ·121d.
Gross cost	£7,716	= 1·987d.
Interest charges	3,744	= ·964d. } 2·015d
Sinking fund and repayments	4,082	= 1·051d. }
Total actual cost of units sold	£15,542	= 4·002d.
Less deficiency on year's working	1,388	= ·358d.
Revenue for year	£14,154	= 3·644d.

❦ ❦ ❦

Variation in Monthly Maxima.

THE load-factor of a cotton mill in Lancashire is somewhere in the neighbourhood of 30 per cent., and the expression load-factor does not quite cover the excellent conditions under which such steam plant works. It is run for, say, eight hours daily at its most economical load, and shut down for the remainder, and this is better than running a plant at one-third of its maximum throughout the twenty-four hours with a short peak load. But in electricity works the monthly maxima vary greatly, as will be seen from the figures for Worcester:—

KILOWATTS.

	Jan.	Feb.	March.
First half-year	537 ...	512 ...	515
	Dec.	Nov.	Oct.
Second half-year	596 ...	561 ...	534
	April.	May.	June.
First half-year	498 ...	429 ...	412
	Sept.	Aug.	July.
Second half-year	503 ...	453 ...	406

These may be compared with the units generated, but as the loads are for both stations and the units generated are for the Powick works only, the comparison must not be pressed too far.

UNITS.

	Jan.	Feb.	March.
First half-year ...	93,330 ...	70,230 ...	70,080
	Dec.	Nov.	Oct.
Second half-year	92,670 ...	77,970 ...	63,110
	April.	May.	June
First half-year ...	64,450 ...	46,850 ...	35,630
	Sept.	Aug.	July.
Second half-year	44,650 ...	34,810 ...	27,880

The effect of such variations upon the turnover is obvious, and if the public could be got to grasp the principle which they illustrate there would be less opposition evinced to the use of a sliding scale or maximum demand method of charging for electrical energy.

The capital invested in the whole undertaking was covered by the following items:—

Lands	£8,955
Buildings	30,228
Machinery ... ... }	
Mains and services ... ... }	78,276
Motors and transformers ... ... }	
Accumulators	1,320
Meters	5,129
Electrical instruments...	321
Various	1,602
Total on capital account .	... £125,831

AUSTRALIAN TRAMWAY SYSTEMS.

IN no part of the world, in proportion to the number of population, are street tramways more extensively used as a means of passenger transit than in the leading Australian State capitals. Although their introduction is of comparatively recent date, their development has been marvellous, and, as in many European and American cities, they have assisted in making riding cheaper than walking, and are causing the omnibuses and other conveyances of a past generation to become forgotten.

In Sydney, the tramways were originally worked by steam power, the cars being double-decked, like the railway carriages on several of the Paris suburban lines; but subsequently the cable system was introduced, and later on electricity became utilised as the motive power, and with such success that it is only a question of time when the locomotive and cable will be found dispensed with.

The various tram-lines, which, like the railways, are the property of the State, form a complete network of communication between nearly every part of Sydney and its suburbs, thus assisting in counteracting the tendency to overcrowding, which forms one of the evils associated with large centres of population. The total length of tram-lines open on June 30, 1903, was 124½ miles, representing an expenditure of £3,371,587 for construction and equipment, the number of passengers carried during 1903 being 130,405,402.

The Melbourne system, embracing a length of 48 miles, 43½ miles of which are worked by cable, and 4½ by horse-power, was constructed by a municipal trust, at a cost of £1,705,794, and is leased to a company. The number of passengers carried during the year was 47,564,942. There are also several suburban lines worked by limited liability companies as follows:—Horse 8½ miles, electricity 4 miles, and cable 2¼ miles.

In Brisbane, the tram-lines were originally worked by horse-power; but in 1897 it became replaced by electricity, the tramways being the property of an English company, and covering a total length of 28 miles. As the traffic increases, extensions are effected.

At the close of 1902, there were in the State 65 miles of tramways, including those in Brisbane, the number of passengers carried during 1903 being 18,125,302.

In Adelaide, there are several tramway-lines worked by horse-power; but an attempt is being made to secure the introduction of the electric system. The lines are owned by private companies. In Western Australia, Perth has a well-organised system of electric tramways, which, like that in the Kalgoorlie municipalities, is the property of a private company. Fremantle and Boulder City also will shortly be in possession of electric tramway systems, constructed by private enterprise under municipal supervision.

The only State-owned tramway is that running between the port of Roebourne and the town of Cossack, a distance of 8½ miles, in the north-western portion of the State.

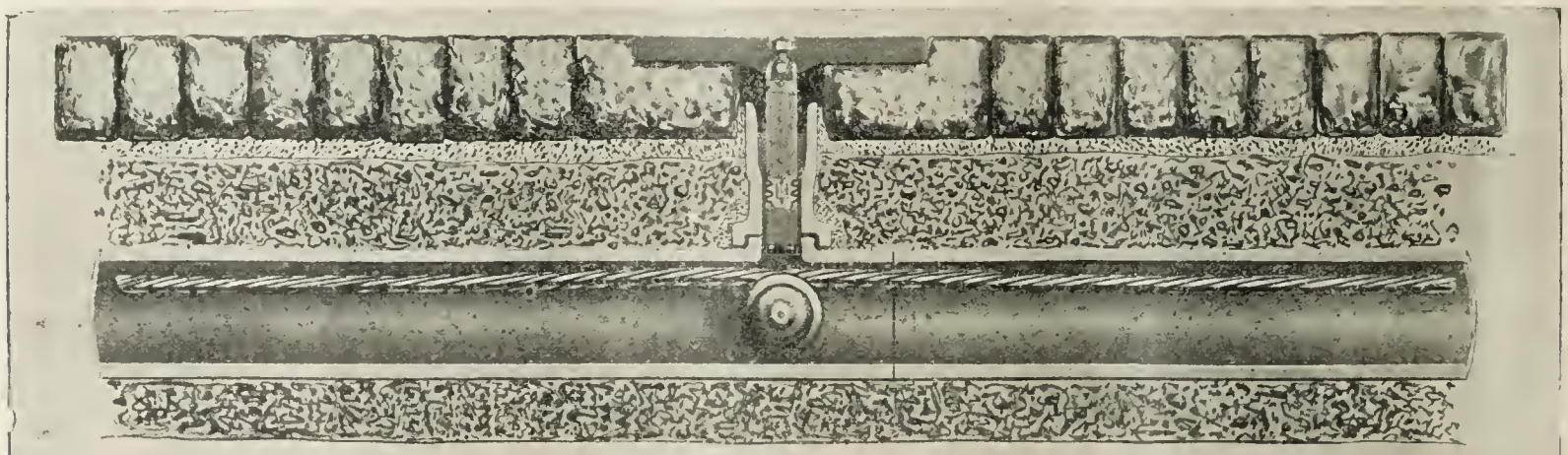
In Tasmania, the Hobart tramways are worked by electricity, and extend a distance of about 9 miles. They are owned by a private company, and were opened in 1901, in which year they carried 1,432,176 passengers. There is also a steam tramway in the north-west portion of the State, connecting Zeehan with Williamsford, a distance of 11 miles, its summit being 1,500 feet above sea level.

Compared with other Australian tramway systems, that of Sydney is considerably the most efficient, there being a continuous succession of trams from early morning until midnight, an all-night service being established on several lines. During the earlier hours of the day and in the evening the tram traffic is enormous, the cars, running almost every minute, being densely crowded. It is the same at holiday time, and the greater the amount of accommodation provided by the State Railway Commissioners the denser becomes the crowding. It is as if the whole population desired the use of the tramcars. Yet, with all this heavy traffic, accidents are comparatively few, being in most instances due to the disregard of ordinary precautions on the part of the sufferers.

All the Australian electric systems are on the overhead wire principle, which is not found to interfere with the work of fire-brigades to anything like the extent originally anticipated. The cost of the New South Wales tramways was defrayed out of loan revenue, and they constitute one of the most valuable assets of the State.

THE South Shields Town Council, which has been considering the question of electric tramways for the last three years, this week took a decisive step in the direction of providing these conveniences. The whole of the tenders for the construction and electrical equipment which the Tramway Committee recommended are accepted, the total amount involved being £56,000, exclusive of the cost of cars. Messrs. W. Underwood and Brothers, of Dukinfield, are to construct the permanent way and track, at a cost of £42,903, and copper rail binding at a cost of £770. Messrs. Dick, Kerr and Co., London, are to supply the generators, at a cost of £2,695, and Messrs. J. and H. M'Laren, Leeds, engines, at a cost of £3,400. Efforts were made at the Council meeting to induce the authority to abandon certain proposed routes, but they were unsuccessful. A proposal to have the cars on the Brill system was referred back for further consideration.

J.G.WHITE & COMPANY, LIMITED.
ELECTRICAL, MECHANICAL & CIVIL ENGINEERS
GENERAL CONTRACTORS
22A, COLLEGE HILL, CANNON ST LONDON, E.C.
TELEGRAMS "WHITTERICK, LONDON." TELEPHONE 6044 & 6045 BANK.



LONGITUDINAL SECTION.

The "G.B." SURFACE CONTACT SYSTEM. The Simplest, Best, and Cheapest System.
HAS BEEN ADOPTED BY THE LINCOLN CORPORATION. For Particulars apply to—
The "G.B." SURFACE CONTACT COMPANY, Hamilton House, Bishopsgate St. Without, E.C.
Telegrams: "OPALITE, LONDON." Telephone: 2368 LONDON WALL

TRAMWAY TOPICS.

Railway Companies and Motor Omnibuses.

THE adjourned meeting of the Manchester Tramways Conference, held at the Westminster Palace Hotel on Saturday, discussed the question of the motor omnibuses proposed to be run by railway companies. It was reported that the Midland and the Great Western Companies had both withdrawn their omnibus clauses; and the North-Eastern Railway Company proposed to make some concessions in order to meet the views of the municipal and other tramway owners. Sir Edward Grey, as a director of the North-Eastern, intimated that whilst the company would try to meet the objections of tramway owners in urban districts, it desired full liberty for giving motor 'bus facilities in country districts. The meeting was adjourned to consider what amendments the North-Eastern was willing to make in its motor 'bus clause.

The Cost of the Keighley Scheme.

A SPECIAL report prepared as to the cost of the new electric tramways at Keighley should be very satisfactory reading to the ratepayers. The tramways proper have cost £19,354, and the contingent street improvements £10,374; total, £29,728. The estimated cost of the tramways proper having been £24,412, there is consequently a saving of about £5,058.

Welcome to Exeter's New Electric Trams.

THE returns of the first four days' working of Exeter's new electric tramway show how great a boon to the citizen the new service promises to become. For some months, the traffic receipts of the old cars were small, less than 10,000 people being carried during one week. The electric service just inaugurated, however, has changed all that. From Tuesday to Friday of last week the total number of persons availing themselves of the new trams was 36,850, giving a financial return of £183 6s. 6d. This is nearly as many passengers carried on one day as there were previously in one week—a remarkably sudden change for a quiet city like Exeter, even after every allowance has been made for the novelty of the new service.

Croydon Refused Motor 'Buses.

THIS week, once more a Parliamentary Committee has shown its unreasoning objection to local authorities owning and running omnibuses over their own streets for the good of their own people. In the Croydon Corporation Bill, one of the proposals was to empower the Corporation to provide, maintain, work, and run omnibuses, whether moved by animal power, within and for a distance of one mile from the borough, and to purchase and lease land on which to erect omnibus, carriage, and motor houses. No one could say there was anything immoderate in these proposals, except those who were financially interested in their rejectment. With a view, possibly, of avoiding as far as possible clash of interests, it was subsequently decided by the Corporation to omit altogether the power to purchase or lease land for the omnibus houses and to confine the running of the 'buses to certain specified routes.

Opponents of the Scheme.

THE proposals of the Croydon Corporation briefly were: to purchase twelve motor-'buses at a cost of £12,000, and to run over thirteen specified routes, all of which terminated within one mile of the borough boundary. Some of the routes were those along which tramways had been authorised, but had not yet been begun. Here public and company interest clashed, and the Police and Sanitary Regulations Committee on Tuesday refused to allow the clause, even as amended, and struck it out of the Bill. It is, perhaps, hardly necessary to point out the significance of the British Electric Traction Company and the South Metropolitan Tramways Company being active in opposition to the clause. It is more difficult to understand why the Penge Urban District Council and the Croydon Rural District Council should appear as opponents. These smaller bodies seem to live in the back woods of municipal progress.

North London Tramways.

THERE is news this week which will make the pulse of the worker of North London beat faster with expectation. There is more than a sporting chance that the Moderates' policy of handing over the tramway system on lease to the North Metropolitan Company will be "dished." If the County Council adopts a proposal now brought forward by its Highways Committee, the tired worker will have an opportunity of being carried swiftly and pleasantly, in up-to-date electric cars, so soon as 1907. In the ordinary course, the lease given by the enemies of progress and enlightenment does not expire until 1910. but Londoners recently declared with a loud voice they were Progressives, and the Highway Committee is to be congratulated upon nicely gauging public opinion. It is satisfied that no adequate solution of the difficulties that stand in the way of the reconstruction of the North Metropolitan lines for electric traction can be arrived at unless the Council obtains full possession, and it recommends that the company's interest be brought out as from April next year, at a price of £120,000.

The Price of Early Electric Trams.

THIS really is a small figure for what the London County Council, and consequently North Londoners, stand to gain. It is a mere "flea-bite in the ocean" compared with the cost of the work of electrification, estimated by the Finance Committee at £3,000,000, for tramway works, with a further sum of from £1,000,000 to £1,500,000 for street widenings. But to the sum of £120,000, at which the company's interest might be bought out, it is further proposed that a price be paid for the horses, cars, stable implements, harness, and miscellaneous plant and machinery, which in the ordinary course the Council would buy on valuation at the expiration of the lease. The company's estimate of the value of these things is £314,586. "Early reconstruction" is the principal advantage which the Highways Committee offers the Council if the scheme be adopted. "Even if the sacrifice of the profits secured to the Council under the lease entailed some financial loss, which, however, having due regard to all the factors involved, we think would not be the case in the long run," says the committee, "we are still of opinion that the course now proposed would be justified to secure to North London the benefit of electric tramways some four years sooner than would otherwise be possible." This is a strong and a proper stand to make in the interests of progress.

Other Reasons for the Purchase.

BUT these, strong as they are, are not the only reasons for speedy purchase. The tramway subway between Southampton Row and the Strand is nearing completion, and its value would be increased if through communication could be established between North and South London from the date of its opening. Should the bridge tramways be authorised, through north and south services can be instituted; and finally, early electrification would mean more economical production of current at the huge Greenwich generating station. From the new service, the committee estimates a revenue of £350,400 a year. The interest and repayment charges would come to £252,500, leaving a surplus of £97,900, irrespective of charges for street widenings. These figures are on the basis of about one-half the lines being reconstructed on the conduit system, and the other half on the overhead system. The adoption of the conduit system on the whole of the lines would involve an additional annual cost of about £32,250. We trust that the Council will see the matter in the clear light of its Highways Committee statements, and lighten the load of the worker, and speed his business by giving him early this boon—the electric tram.

DICK, KERR & Co., LIMITED.

Manufacturers of all kinds of Electrical Machinery.

Contractors for Municipal Lighting and Tramway Schemes.

HEAD OFFICE: ABCHURCH YARD, CANNON STREET, LONDON, E.C.

WORKS: PRESTON, LANCS., AND KILMARNOCK, N.B.

"MUNICIPAL JOURNAL" ANALYSES OF ELECTRIC TRAMWAY ACCOUNTS.

1903-4.

	Population.	Date tramways started.	Length of street route. Miles.	Gange. Ft. In.	Capital outlay. £	Number of passengers carried.	Number of car miles run.	Total receipts. £	Working expenses. £	Percentage of expenses to rec'pts %	Nett receipts. £	Percentage of nett receipts to capital. Per cent.	Interest charges and lease rentals. £	Repayment charges. £	Surplus (+) or loss (−). £	Provision for depreciation and reserve. £	Contribution to rate fund.	Traffic receipts per car mile. d.	Expenses per car mile. d.	Average fare per passenger. d.	Electricity supplied by	Number of B.O.T. units used.	Price paid or cost of electricity per unit. d.
Aberdeen ..	165.000	Aug., 1898	14·14	4 8½	314,407	15,538,167	1,379,723	64.071	37.054	58	27,017	8·59	10,389	2,397	+14,231	14,231	nil	11·00	6·45	·98	Elec. Dpt.	1,525,708	1·52
Ayr	33,000	Sept., 1901	5 69	4 8½	71,775	3.316,380	353,945	14,334	7.622	53	6,712	9·35	2,303	891	+3,518	3.518	nil	9·46	5·17	1 01	Elec. Dpt.	324,157	1 30
Birkenhead ...	113,300	Feb.. 1901	13·52	4 8½	345,960	11,327,932	1.349,701	55,946	34,748	62	21.198	6·13	10,538	8,777	+1,883	1,883	nil	9·72	6·18	1·16	Own wrks	2,128,607	·72
Blackpool ...	50,000	1885	9·62	4 8½	267,178	6,357,218	735,103	42,061	27.873	66	14,188	5·31	8.422	5.713	+53	nil	nil	13·50	9·10	1·56	Elec Dpt.	1,008,529	1·83
Blackburn ...	188.000	1887	14·13	4 0	320,203	7,742.692	951,484	44,682	29.369	66	15,313	4·78	8,818	11,633	—5,138	nil	nil	10·94	7·41	1·34	Elec. Dpt.	1,785,712	1·50
Bolton	171.100	Jan., 1900	25·13	4 8½	504,509	19.895,496	2.188,030	95,096	54,716	58	40.380	8·00	12,233	13.654	+14,493	12.233	2.260	10·33	6·00	1·14	Elec. Dpt.	3,098,292	1·25
Bournemouth ...	60.000	July, 1902	12·25	3 6	257.812	9,363 985	1,022,164	54.397	30,276	56	24,121	9·36	9,051	7.336	+7.734	nil	nil	12·31	7·11	1·34	Own wrks	1.601,039	·86
Bradford	324,000	July, 1898	48·52	4 0	818 205	39,639,44	4,546,942	197.438	135,869	69	61,569	7·52	*48,169	—	+13.400	2,917	nil	10·20	7·17	1·17	Elec. Dpt.	7.731,563	1 0
Brighton	123,500	Nov.. 1901	9·95	3 6	242.811	10,999,046	1,151,477	46,264	40,356	87	5,908	2·43	7,199	3,488	—4,779	nil	nil	9·60	8·41	1·00	Elec. Dpt.	1,774,988	1·50
Burnley	154,000	Dec., 1901	10·77	4 0	176,468	7,514,063	896,397	43,738	30,644	70	13,094	7·42	6,132	3,426	+3,536	3,536	nil	11·58	8·20	1·38	Elec. Dpt. & Nelson Crp.	1,461,700	1·79
Burton-on-Trent .	52,000	Aug.. 1903	5·74	3 6	82,500	2,566,134	282.378	11,943	8,919	75	3.024	3·67	1,533	773	+718	718	nil	9·84	7·58	1·08	Elec. Dpt.	362.827	1·46
Cardiff	168,000	May, 1902	14 63	4 8½	687,222	23,574,204	2 643.762	105,017	65.351	62	39,666	5·77	19,219	14,084	+6,363	403	642	9·24	5·93	1·04	Own wrks	5,896.506	·45
Chester	39,000	April, 1903	2·50	3 6	66,098	2,002,835	260,785	8,916	5,332	60	3,584	5·42	2,026	1,218	+340	nil	nil	8·17	4·91	1·06	Elec. Dpt.	239,072	1·75
Darwen	40,000	Oct.. 1900	4·36	4 0	79,272	2,236.102	253.345	12.371	8.413	68	3,958	4·99	2,411	1,982	—435	1.050	nil	10 92	7·97	1·24	Elec. Dpt.	422.583	1·71
Dover	42,000	Sept., 1897	3·00	3 6	41,850	2,871,332	280,901	11,839	8,714	74	3,125	7·47	*2,205	—	+920	nil	nil	9·63	7·45	·94	Elec. Cpy.	319,413	2·75
Dundee	163,000	July, 1900	12 65	4 8½	263,382	11,420,985	942,969	44,437	28,521	64	15,916	6 04	6,837	5.000	+4.079	2.842	nil	11·15	7·26	·92	Elec. Dpt.	1,661,721	1·49
East Ham ...	104,000	June, 1901	6 82	4 8½	135.591	12,950,269	807,002	35,301	24.262	69	11.039	8 14	5,806	3,285	+1,948	1 356	nil	10·20	7·22	·64	Elec. Dpt.	920,696	1·75
Farnworth ...	50,000	Jan., 1902	4·33	4 8½	43,696	1,532,293	242.524	7,486	4.850	65	2,636	6·03	3 241	1,175	—1,780	nil	nil	7 40	4·80	1·17	Elec. Dpt.	317,126	·50
Glasgow	1,000,000	July, 1894	70·34	4 7¾	2,107,880	188.962,610	16,291,082	724,851	356,820	49	368,031	17·46	64,376	45.553	+258,102	233,102	25 000	10·58	5·26	·91	Own wks.	15,372.609	·42
Halifax	168,000	June, 1898	33·41	3 6	342.460	16.322 059	1.387.885	68,289	50,758	74	17,531	5·12	9,957	7.081	+493	493	nil	11·76	8·78	1·00	Elec. Dpt.	2 659.920	1·62
Huddersfield ...	100.000	Feb.. 1901	28	4 7¾	411.722	11.899.287	1,632,000	65,883	34 665	53	31.218	7·58	13 632	10,638	+6,948	11,687	nil	9·37	5·10	1·28	Own wks.	2,565,643	·34
Hull	248.000	July, 1899	13 60	4 8½	383,977	24 220 718	2.512,821	101,259	63 194	62	38,065	9·91	9.932	9.148	+18.985	7,485	11.500	9·61	6·04	1·00	Own wks	3.285,621	·63
Ilford	52,000	Mar.. 1903	6·50	4 8½	132,874	5,274,025	577,034	23.218	13,568	58	9.650	7·26	3,046	2,033	+4,571	4,571	nil	9 39	5·64	1·03	Elec. Dpt.	563,464	1·50
Kirkcaldy ...	34,100	Feb., 1903	5·25	3 6	78,731	2,770,936	301,779	10,189	7,623	75	2,566	3 26	2,012	471	+83	40	nil	7 90	6·06	·86	Elec. Dpt.	395,071	1·75
Lancaster ...	40,300	Jan.. 1903	3·41	4 8½	27,207	1,079,772	153,692	4,191	4,654	111	*loss* 463	—	1,245	1.125	—2,833	nil	nil	6·54	7·27	·93	Elec. Dpt.	199,600	2·00
Leeds	446 400	Feb , 1894	42·51	4 8½	1,107.977	60,739.234	6.091,437	281,418	155,598	55	125,820	11·36	27.639	27.094	+71,087	19.087	52,000	10·94	6·13	1·10	Own wks.	9.518,680	·34
Liverpool... ...	760,000	1868	57	4 8½	1,863,485	113,057,234	11,734,838	533,394	335,621	63	200,773	10·77	52,932	51,598	+96,243	64,162	32,081	10·73	6·86	1·11	Elec. Dpt. & Bootle Crp.	17,978,718	1 08
Manchester ...	750.000	June, 1901	79·49	4 8½	1,485.612	120,772,368	13.759,071	611,881	392,504	64	219,377	14·77	72,781	26.903	+119	69,693	50,000	10 52	6·85	1·20	Elec. Dpt.	16,815,764	1·49
Nelson	36,000	Feb., 1903	2·74	4 0	30,493	1,420.759	171,132	4,655	3,563	77	1,092	3·58	781	232	+79	nil	nil	6 47	5·00	·78	Elec. Dpt.	170,611	2·00
Newc'stle-on-Tyne	257.000	Dec., 1901	23·36	4 8½	1,054,493	39,715,120	4.059.907	184.170	120,700	66	63,470	6·02	28 896	22 638	+11,936	nil	nil	10 68	7·14	1·09	Own wks.	7,757,885	·36
Newport	76.000	April, 1903	8·50	4 8½	164 219	4,473,411	635,000	23.653	15.533	66	8.120	4·95	4,360	3,360	+400	nil	nil	8·63	5 87	1·22	Elec. Dpt.	641,860	1·50
Nottingham ...	240,000	Jan., 1901	16·25	4 8½	559,838	27,876.889	2,512,000	128,202	71.259	56	56,943	10·17	15,333	15,128	+26,482	13,482	13,000	12·07	6 81	1·09	Elec. Dpt.	3,768.601	1·25
Oldham	100.000	Dec., 1900	17·93	4 8½	432,188	12,968,880	1,420,455	60,413	43,286	72	17,127	3·96	15,324	9,629	—7.826	nil	nil	10·01	7·31	1·10	Elec. Dpt.	2,177,309	1·50
Portsmouth ...	198.000	Sept., 1901	14·50	4 7¾	634,406	18,204.426	1.828,193	92.917	43,427	47	49,490	7 80	18.343	15,119	+16.028	16.028	nil	11·46	5·70	1·15	Own wks.	2,695,605	·55
Rochdale	86,000	May. 1902	3·96	4 8½	83,386	1,156.300	194,490	6.981	6,761	97	220	·26	2,851	1,406	—4,037	nil	nil	8·42	8·34	1·42	Elec. Dpt.	393.180	1·47
Rotherham ...	58,000	Jan., 1903	8·33	4 8½	105,762	4,914,479	525.840	21,341	15.602	73	5,739	5 42	2.088	1,261	+2,390	2,407	nil	9·57	7·12	1·02	Elec. Dpt.	806,291	1·50
Salford	300,000	Oct., 1901	32·50	4 8½	511,170	36,956,405	4,726,446	198,648	139,508	70	59,140	11·57	27,529	16,171	+15,440	3,440	12,000	10·08	7 09	1·29	Elec. Dpt. &Man.Cp.	6,102.524	1·89
Sheffield	425,000	1872	32·50	4 8½	988,316	61,450,993	5,768,231	233,829	156,403	67	77,426	7·83	30,722	19,394	+27.310	33.771	8,249	9 67	6·51	·91	Own wks.	9.460,618	·48
Southampton ...	107.800	July, 1898	9·72	4 8½	198,621	9,890,952	1,144,350	53,501	36,640	68	16.861	8·49	5.935	4.720	+6,206	1.206	5,000	10 88	7·68	1·26	Elec. Dpt.	1,298.392	2·25
Southport ...	49,000	June. 1900	8·42	4 8½	118.364	3,837,208	431,019	17,646	10,986	62	6.660	5·63	3,803	3,198	—341	nil	nil	9 63	6·12	1·08	Elec. Dpt.	492,261	1·50
Stockport... ...	110,000	Aug., 1901	12·27	4 8½	140.276	3,170,854	606,476	19,074	12.914	68	6.160	4·39	4,196	1.334	+630	nil	nil	7·37	5·11	1·41	Elec. Dpt.	790,892	1·50
Sunderland ...	158.900	June. 1900	10·92	4 8½	277,240	14,848.958	1,433,463	62.669	36,517	58	26,152	9·43	8,241	8,330	+9.581	5 567	4,014	10·46	6·11	1·01	Elec. Dpt.	1.562 748	1·87
Wallasey... ...	56,500	Mar., 1902	8·48	4 8½	127,949	6,564,493	757,688	35.873	24,980	70	10,893	8·51	4,064	1.618	+5,211	4.500	2,650	11·17	7·91	1·29	Elec. Dpt.	1,243.340	1·63
Warrington ...	80,000	April, 1902	6·42	4 8½	94,563	3,940,305	419,036	16,264	12,012	74	4.252	4·50	3,024	2,011	—783	nil	nil	9·15	6·88	·97	Elec. Dpt.	496,268	1·90
Wolverhampton.	94,200	Mar,, 1902	7·33	3 6	183,840	4.555,435	507,527	23,591	14,911	63	8,680	4·72	5,278	2.293	+1.109	3,475	nil	10·97	7·05	1·22	Elec. Dpt.	773.208	1·66
Yarmouth ...	35,000	June, 1902	3·59	3 6	44,149	1,611,699	222,350	7,876	5,939	75	1,937	4·39	1,570	582	−215	nil	nil	8·33	6·41	1·15	Elec. Dpt.	172,939	2·50

* Includes Repayment Charges.

NEWS IN BRIEF.

Taxation of Land Values.

On Wednesday, another important conference of representatives of municipal and other rating authorities was held at the Westminster Palace Hotel, London, for the purpose of discussing the question of the taxation of land values. Ex-Bailie Ferguson, of Glasgow, presided, and there was a crowded attendance, among those present being, Mr. J. H. Whitley, M.P., Mr. J. S. Harmood-Banner, M.P., Mr. Trevelyan, M.P., Alderman Southern (Manchester), and Alderman Miles (Bolton). It was resolved unanimously:—"That this conference of representatives of municipal and other rating authorities record their satisfaction that Sir John T. Brunner, M.P., was successful in obtaining a place in the private members' ballot; cordially thanks him for introducing the measure intitled 'a Bill to provide for the separate assessment of rating land values' (which Bill was introduced by Mr. Trevelyan last session, and carried on second reading by a majority of 67 votes); and pledge themselves on behalf of their respective constituencies to use every means in their power to secure the passing of the Bill." A vote of thanks was accorded Mr. J. S. Ainsworth, M.P., for his services in introducing a Bill application was not opposed.

Durham Sewerage Scheme.

On Wednesday, at the Durham Town Hall, a Local Government Board inquiry was held into an application by the Corporation of Durham to borrow £16,589 in connection with a new sewage disposal scheme. The population of the city was stated to be almost stationary at 14,659; the rateable value £51,704, including £1,533 representing Crown property, such as the prison. The total debt of the town on 31st March of this year was £19,072, besides which authority had been obtained, but not yet used, to raise a further sum of £5,168. A proposal for enlarging the boundaries was before the Local Government Board, and if it were granted the population would be increased to 17,669.—The applicaion was not opposed.

Newcastle's New Tramway Manager.

On Wednesday and last (Thursday) evening, the new manager of the Newcastle Corporation Tramways (Mr. E. Hatton) was welcomed to his appointment. The proceedings took the form of very enjoyable entertainments to the tramway employees given by the Mayor and Mayoress (Alderman and Mrs. Jos. B. Ellis). Half the staff (550 men and girls) were entertained each night. During Wednesday night's proceedings, the Mayor said it had been intended that that entertainment should have taken place on his birthday; but when the Council appointed a new tramway manager, it was thought better to take advantage of Mr. Hatton's appointment and hold that gathering that night. Mr. Hatton, on rising to speak, was enthusiastically cheered. He expressed his grateful thanks for the cordial welcome. An excellent concert followed.

Leeds Sewerage Engineership.

It is expected that next week the Sewerage Committee of the Leeds Corporation will come to a definite decision respecting the appointment of an engineer for carrying out new works in contemplation. Three candidates are still in the running, viz., Mr. Alfred Fidler, borough engineer, Northampton; Mr. Joseph Garfield, sewerage engineer to the Bradford Corporation; and Mr. George Adam Hart, chief assistant engineer to the Birmingham Tame and Rea Drainage Board. Last week-end, members of the Committee visited Bradford to make further inquiries as to the qualifications of Mr. Garfield, and before a final decision is arrived at journeys will be made to Northampton and Birmingham to seek additional information concerning Mr. Fidler and Mr. Hart.

Southampton Tramways Manager.

An unusual course was adopted by the Southampton Town Council, on Wednesday, over the appointment of a manager of the local tramway system. The Committee had recommended the appointment of the deputy-manager of the Sheffield Corporation Tramways (Mr. Yerbury), who had been chosen out of fifty applicants for the post, at a salary of £500, rising to £600. An amendment that consideration of the matter be deferred was defeated. Subsequently, it was moved that the present borough electrical engineer, Mr. Street, be appointed manager of the tramways, in addition to his present duties, at an increase of salary of £150. After an animated debate, Mr. Street was appointed by twenty-four to twenty votes.

The Tender for South Shields Municipal Building.

The tender of Messrs. Robert Neill & Sons, Manchester, for the erection of the South Shields Municipal Buildings, including the boundary walls, for £47,900, has been accepted in place of the tender of Mr. Thomas Riley, of Fleetwood, withdrawn. Mr. Riley's tender was for £46,450 5s. 11d.

Another Warrington Inquiry.

A committee of investigation is appointed by the Warrington Town Council to investigate a charge made at a recent meeting against some member unnamed of having asked a certain individual to pay him £100, in consideration of which sum the member would use his influence to get passed by the Council a scheme by which the payer of the £100 would benefit materially.

Municipal Lodging-Houses for Women.

It was recorded in the report of the Secretary (Mrs. Clark), read at the annual meeting of the Women Guardians' and Local Government Association, in Manchester, this week, that the Secretary had visited several lodginghouses for women, and it was a matter for regret that Manchester did not possess a municipal lodging-house for women, with a labour bureau in connection, on the lines of the one in Glasgow, which was self-supporting.

Big Sewage Scheme at Harrogate.

For some time, Harrogate has been proceeding with a comprehensive sewage scheme, and this week a portion of it was brought into operation. The present system of broad irrigation is not satisfactory, the town having grown and extended in the direction of the sewage farm. The system now in course of construction will also do away with smaller schemes which were taken in when the borough was enlarged. The total cost of the new portion of the scheme, exclusive of land, will be £50,000. The total cost of the whole scheme, including land, will be £125,000, and the work will be capable of dealing with a population of 100,000. The scheme is on the septic tank and percolating system.

Finances at Warrington.

The estimates for the coming year presented at the Warrington Town Council the other evening, and passed, showed a total expenditure of £68,214, against £72,542 last year. The Finance Committee recommended rates amounting to 7s. 8d. in the pound, a reduction of 2d.

Typhoid at Lincoln and Its Cost.

The Budget statement of the Lincoln City Council shows that the cost of the typhoid epidemic to the ratepayers already amounts to £4,000, and the Corporation anticipates another £5,000 expenditure during the financial year. This means a rate of nearly 4s. in the pound. To meet the outlay, £6,000 has been appropriated from the gas and waterworks profits, and thus, for the present year, the city will escape with a rate of 4s. 6d., as compared with 4s. 3d. in the pound at this time last year. If the Corporation had kept its house in order, this might have been avoided.

Bury Joint Water Board's Charges.

The Bury and District Joint Water Board, the area under the administration of which includes Bury, Radcliffe, Ramsbottom, Rawtenstall, and Haslingden, is crippled by the result of a Court of Appeal decision to the effect that it cannot charge property-owners for water or rack-rent. It is estimated that this has caused a deficit of £4,200. To meet this deficit, the Finance Committee has recommended the discontinuance of discounts on houses of £30 and upwards, and the reduction of discounts on water sold from 10 to 2½ per cent. on the first million gallons. This will yield £2,200, and the question of raising the balance has been left for further consideration.

Vagrancy and Herefordshire Unions.

With a view to taking steps for the better control of tramps, a conference of the chairmen, vice-chairmen, and masters of the Poor Law Unions in Herefordshire was held on Tuesday, at Hereford. Sir John Cotterrell, Lord-Lieutenant of the County, presided. It was resolved that all the Herefordshire unions shall carry out a uniform system of treatment of all vagrants, making full use of the powers given to them by the Casual Poor Act of 1882, and the resolutions thereunder, so far as it is possible, and that the masters of all unions be constituted a sub-committee to prepare a scheme for general adoption. It was further agreed that it should be publicly made known to employers of labour that various unions joining this scheme would, on the application of an employer, send him when possible a man whom, in their opinion, they thought suitable for the work required of him. A further resolution passed was to the effect that the conference should urge the Local Government Board to request the Departmental Committee on Vagrancy to present its report at the earliest possible convenience, so that boards of guardians may have an opportunity of considering it

Fulham Baths Staff Annual Dinner.

On Monday the Staff of the Fulham baths and wash-houses held its first annual dinned at the Windsor Hotel, Fulham. The chair was taken by the Superintendent (Mr. A. A. Baker), and the company included the Mayor (Councillor W. R. Sayer, J.P.), the Chairman and Vice-Chairman of the Establishments Committee (Councillors A. J. Warner and R. Davies), and the Town Clerk (Mr. R. M. Prescott). Replying, after the Mayor, to the toast, "Our Guests," the Town Clerk said he had visited nearly every public baths in London, and many in the provinces, and in his opinion Fulham compared favourably with any of them. He hoped it would become an annual custom to hold a dinner.

Croydon Tramways Athletic Club.

A pleasant time was spent by the members of the Croydon Tramways Athletic Club and employees the other evening, the occasion being the annual dinner. The general manager (Mr. T. B. Goodyer) presided. After an excellent toast list had been gone through, the Chairman of the Croydon Tramways (Mr. Jas. Devonshire), presented prizes won during the year. In the course of his remarks, he said there was one thing he would like to mention, and that was that the trams throughout the country were being unfairly handicapped by motor 'buses, which were allowed to go quicker. Even the Corporation of Croydon was coquetting with motor 'buses, and apparently getting tired of cars. The enormous number of passengers carried every year was a clear proof that this was not the case with the travelling public. The energetic secretary of the club (Mr. C. G. Foster) is to be congratulated on the success of the gathering.

The Electricity Committee of the Pudsey Town Council has recommended the appointment of Mr. E. Denton, of Prescot, as electrical engineer to the Corporation. The applicants numbered over a hundred.

PORTLAND CEMENT.*

It Brings Birmingham Water Supplies from Welsh Mountains, and is Otherwise an Invaluable Article. Methods of Manufacture in Great Britain and Abroad. Various Approved Methods of Testing the Cement. A Paper that will be Read with very Great Interest by Municipal Surveyors and Engineers and General Contractors.

[By Mr. H. K. G. BAMBER, F.C.S.]

IN rising to address this audience, the author must first claim your indulgence for the presentation of his remarks in a somewhat condensed form, necessitated by the very short space of time at our disposal. He may assume also that the majority of his audience are somewhat familiar with the subject, and that it will not, therefore, be necessary to go in detail into the ancient history of Portland Cement, but rather to confine his remarks to the more recent development in the processes of manufacture of this most important building material.

You meet with it in almost every form of building construction—in huge masses in the form of concrete foundations, in which position its strength and constancy of volume are relied upon to support the whole of the superincumbent weight, frequently with very heavy and varying loads. In the most recent practice of building construction, and one which is rapidly coming to the front, it is used almost exclusively in conjunction with steel and iron for the whole of the superstructure, entirely superseding brick, timber, and other forms of light construction.

Value for Large Works.

Without this material, some of the largest and most important works in the world could not have been accomplished, such as docks, harbours, waterworks, &c. Of the latter, the Corporation of Birmingham possesses perhaps the finest example in this country in their enormous reservoirs in the Elam Valley, the immense dams, impounding acres of water, being constructed almost entirely in Portland Cement concrete, in conjunction with stone as facing: the strength of the whole construction, however, depending upon the strength obtained in the enclosed concrete. It has been the author's privilege to visit these works on frequent occasions. The supplies of the whole of the Portland Cement amount to some 90,000 tons up to the present time; and, with some knowledge of the subject, the author is able to say that he has never seen more magnificent concrete work, due primarily to the excellent quality of cement, but largely and chiefly to the great care and ability applied in its use. Without Portland Cement, it is safe to say that Birmingham would never have obtained its water supplies from the Welsh mountains.

Process of Manufacture.

Having realised the immense value that Portland Cement has been in the past, and is still more likely to be in the future in the hands of the engineer, let us turn our attention to some of the more recent methods of manufacture of this material. Shortly, the old process consisted of mixing together chalk and clay (for many years the only materials used) in definite proportions: a difficult matter, when it is remembered that it is only in recent years the assistance of the trained chemist has been utilised to check the composition in the early stages of manufacture, and that formerly this was done entirely by rule of thumb, the material frequently reaching the final stages of manufacture before defects were discovered arising from improper proportions of raw materials, which defects it was then practically impossible to remedy. After mixing, the material was then pumped or elevated into "backs," or reservoirs, where settlement could take place, and a considerable percentage of the water used for amalgamating the chalk and clay could be removed by decantation and evaporation. This mixture of chalk and clay was then removed by hand or pumped on to drying-floors or chambers over the kilns, where the water remaining therein was evaporated by heat obtained from the process of calcining, to which process in its turn the dried material was subjected. The resulting clinker was then ground to a powder, producing the Portland Cement as known to the trade.

German and American Research.

The development of research, and the carrying out of properly-organised investigations into the manufacture and properties of Portland Cement, more especially in Germany and America, compelled the English manufacturer, who had been somewhat tardy in this direction, to set about putting his works in order, and remodelling them on scientific lines. The extension of knowledge of the subject soon resulted in other calcareous and silicious materials being experimented with for the manufacture of cement, and in many cases such materials, other than chalk and clay, have been found suitable under proper methods of manufacture for the purpose, with the result that works have sprung up in various parts of the country.

As one of the author's objects is to bring to your notice the correct methods for practically testing cement, the various processes of the more modern manufacture will be shortly described, so that in dealing with the question of testing, it will be possible to trace back to each particular process of manufacture the conditions which are, and must be, applied by the manufacturer to obtain a finished product which shall possess those qualities that will enable it to successfully pass the various tests required of it, and which will later have our consideration.

British Methods.

Great care is taken to remove from above the chalk all "callow," *i.e.*, gravel, loam, sand, and hard contaminated chalk, locally known as "bull head," so that none but the pure chalk is used for the manufacture. As the supplies of chalk immediately contiguous to the works have long since been worked out, it has been necessary to go further inland for material, necessitating steam or other traction to bring the raw material to the works.

The chalk and clay obtained are brought into the works, and there carefully mixed by means of powerful machinery in fixed and definite proportions, in accordance with the requirements of the specification under which it is intended the cement manufactured therefrom is to be supplied.

Chemical Tests.

The principal objects of this part of the process are first to get the materials mixed in exactly the proper proportions, and this is done by the most careful and continuous system of sampling and analysis while mixing is going on. Samples are taken every fifteen minutes, and so regular is the composition of the chalk and clay used, that the chemists in charge of the various plants, working under a properly-organised system, have no difficulty, by means of chemical tests, in keeping the proportions well within the prescribed limits.

The method adopted is to determine the amount of carbonic anhydride (CO_2) present in an accurately-weighed amount of the dried mixture of chalk and clay. Chalk ($CaOCO_2$) consists of 56 parts of calcium oxide (CaO) chemically combined with 44 parts of carbonic anhydride (CO_2) and it can only occur in these fixed and definite proportions. By taking, therefore, an accurately-weighed quantity of dried "slurry" and determining by means of proper apparatus the amount of CO_2 present (which can be done with great accuracy and rapidity), the amount of calcium carbonate present in the mixture can be immediately calculated. In addition to this, the precaution is taken of igniting another weighed quantity of the same dried sample and determining the loss of weight, which latter consists of all the carbonic anhydride (CO_2), and also any organic peaty matter that may have been introduced with the clay. By means of these two tests, carried out by thoroughly skilled chemists, the exact amount of calcium carbonate in the mixture is accurately determined; and, seeing that both operations can be conducted and finished in a comparatively short space of time, a thorough knowledge of the composition is always available to the chemist, who makes the slight alteration on the proportion of materials whenever his tests show that such alterations are necessary. In this way, the manufacturer, with the aid of chemistry, keeps his mixture exactly as required.

The Wet Process.

Having insured this, the next important step is to see that they are thoroughly amalgamated, in order that, when later the materials are submitted to calcination, the atoms going to make up the same may be in the closest possible juxtaposition and in the smallest possible atoms. The chemical combination of the raw materials, when submitted to the necessary process of calcination, is very much more perfect than when the particles are appreciably larger and not intimately mixed; in fact, the combination of the silica and alumina of the clay with the lime (after the elimination of the carbonic anhydride from the chalk) can never properly take place unless the materials to be calcined are in the finest possible state of sub-division.

In the modern cement plants, so perfectly is this part of the operation carried out, that at least 96 per cent. of the chalk and clay delivered to the mixing and grinding mills is capable of passing through a sieve having 32,400 holes per square inch before it is delivered by the mill for conveyance to the storage mixers.

Having brought the raw materials up to this point with a known composition, fineness and fluidity, the mixture of same—technically known as "slurry"—is pumped into large storage reservoirs, each having a capacity of slurry sufficient to make 600 tons of cement. In this way is secured a more perfect mixture, as the slightest variation experienced in the washmills is corrected again at this point by mixing in large bulk. Very great improvement in the quality of the product is obtained by this thorough process of incorporation, previous to the process of calcination, which immediately follows—the slurry in the mixers not being withdrawn until certified by the works chemist that same is in every respect in accordance with requirements.

The Dry Process.

The processes so far described refer exclusively to that known as the "wet," by which process in the United Kingdom the bulk of cement is manufactured. In some localities, however, the raw materials, consisting of a crystalline limestone more or less pure and a shale clay, or marl, are more conveniently amalgamated by what is known as the "dry" process. In this, the materials, as obtained from their original source, are dried by some mechanical or other means, and are then mixed together in the dry condition, and reduced to the state, with some form of grinding machine, of a fine powder, by which an intimate mixture is obtained. The same care and attention chemically are required in this as in the wet process, more especially as it does not lend itself so satisfactorily as the wet for mixing the prepared raw materials in bulk. It has advantages, however, in other directions in the economy of fuel, sufficient only being required to expel the moisture naturally present in the raw materials; whereas, in the wet process, that added for the purpose of intimately mixing the raw materials in a state of suspension has to be eliminated by means of decantation, as in the old "back" process, or by evaporation.

* Paper read at the District Meeting of the Incorporated Association of Municipal and County Engineers, held at Birmingham, April , 1905.

We now come to the second part of the process, which is entirely of a chemical character—the process preceding it being purely mechanical. More attention, perhaps, has been given to improvement of this part of the process than to any other. Many forms and descriptions of kilns have been tried, but as they all necessitate very heavy charges for labour, and the fuel used was essentially coke—a relatively costly fuel, and one liable to unexpected and artificial fluctuations in price—they have not met with much economical success.

Kilns in Use.

Among the most economical of these kilns are the Hoffman (which can be used only in cases where cement is made by the dry process).

Other types of continuous kiln are those known as the shaft kilns. These consist of a vertical shaft with openings at the bottom for removing the burned clinker. The raw material and the fuel are fed in at the top of the kiln, as the materials fall therein, when the clinker is drawn from the bottom end.

Either of these kilns is adapted for use in connection with the dry process, the dry powder being pressed in the form of bricks previous to calcination.

The most familiar forms of kilns on the older process, however, and those adapted to the wet method, are known as chamber kilns, consisting of the closed kiln of ordinary lime-kiln type, having a considerable area of flue attached, constituting the drying floor for the wet raw materials; the hot gases from the burning charge passing over and under a further supply of wet raw material, expelling the moisture therein and leaving it in a dry condition fit for the next charge of the kiln.

With all these kilns, the operator has little or no control of the temperature at the part of the kiln where calcination is going on, and burned, as it must necessarily be, in fairly large pieces, so that the draught of the kiln is not impaired—a considerable portion of the product gets overburned on the surface, leaving frequently a core of "half-burn," which it is difficult to remove, and which has a tendency to cause unsoundness in the finished cement.

The process of burning with rotary kilns was tried as far back as 1885. Although a measure of success was obtained at these early trials, many difficulties presented themselves which at that time appeared to be insuperable. The use of pulverised coal had not come into practice at that time, and great difficulties were experienced in burning with producer gas. No satisfactory material could be found for lining the hottest part of the kiln; and owing to the shortness of the kiln—being only about 25 feet in length—no economical use of fuel could be obtained.

The "Ransome" Process.

The ideas originated in the Ransome process were, however, lately developed in the United States, where the use of petroleum as fuel removed a great many of the early difficulties experienced in the experiments in England. The process was eventually brought to perfection. The process developed very rapidly in America, and the rotary kiln is, in almost all works in that country, adopted for the calcination of Portland Cement.

The prepared slurry—instead of being dried on "ovens" and "chamber kiln floors," with heat from the intermittent (old method) kilns, from which it is eventually to be removed when dry, and packed with coke into these kilns at great expense for labour—is pumped from the mixers already described in a thoroughly homogeneous condition into the rotary kiln, down which it passes as the kiln rotates, the water being driven therefrom by the heat from the escaping gases evolved at the lower or calcining end of the kiln, where a temperature of from 2,800deg. to 3,000deg. F. is continually maintained.

The kilns are, in some cases, seventy feet long, and in more recent practice 80 feet long and 6 feet in diameter. The power for rotating the kilns is obtained by means of electric motors, and the variations of speeds of rotation, necessitated by continual atmospheric changes, are entirely under the control of the operators in charge of the several units.

Calcination Described.

The temperature necessary for calcination at the lower end of the kiln is obtained from the combustion of pulverised bituminous coal, which is forced into the kiln by means of an air blast, or other means, where it immediately ignites. The supply of coal in regular quantities, as required, the economy and efficiency of the process, and the regularity in the qualities of the finished product, depend largely upon the successful working of the machinery of this portion of the plant.

The slurry is pumped from the mixers, as already described, or, in the case of the dry process, the powder is fed into the top end of the kiln, through which it gradually descends, first losing its water by evaporation in its passage down 20 feet of the kiln; it then reaches a temperature where all organic matter from the clay and carbonic anhydride (CO_2) is evolved; and descending further, and when within 20 feet of the lower end of the kiln, it reaches a zone of temperature where the chemical combination of the lime with the silicates of alumina takes place, producing Portland Cement "clinker."

The hot clinker falls from the end of the kiln into a somewhat similar cylinder, but of slightly smaller dimensions. During its passage through this second revolving cylinder, or "cooler," the heat brought over with the clinker is withdrawn by the passage of cold air through the tube, which becomes heated, and is eventually carried upwards by the induced draught of the kiln chimney into the kiln, where it assists combustion.

The rotary kiln produces clinker in appearance quite of a different character to that of the intermittent chamber or continuous shaft kiln. The raw material, in its passage down the rotary kiln, as previously described, breaks up into small particles during the process of dehydration and decarbonation, and presents itself at the clinkering zone in very small particles, so that, in its passage through this zone of fire, the small particles are thoroughly and completely calcined to the centre, leaving no core of half-burnt raw material, as is sometimes the case by the older methods of calcination in large pieces. This perfect calcination is the primary cause of the soundness of the cement produced by this rotary process. The amount of fuel used, and therefore the temperature produced, is entirely under the control of the person operating the kiln; and by means of special apparatus provided he can reduce or increase at will, by altering the speed of rotation of the kiln, the amount of raw material coming towards the firing zone, and also the amount of pulverised coal injected.

Action on the Raw Material.

The chemical action on the raw material which takes place during its passage through the kiln is as follows:—The wet slurry pumped into the upper end of the kiln having parted with all its moisture to the escaping hot gases arising from the combustion of fuel at the lower or calcining end of the kiln, and passing on through a constantly-increasing temperature, having parted with all organic matter introduced in conjunction with the clay and all the carbonic anhydride (CO_2) of the carbonate of lime ($CaOCO_2$), the calcium oxide (CaO) thus formed enters at a temperature of about 2,500deg. to 2,800deg. Fah. into chemical combination with the silica and alumina of the clay, resulting in a clinker or semi-vitrified basic compound consisting chiefly of tricalcic silicate ($3CaOSiO_2$) and decalcic aluminate ($2CaOA_2O_3$).

The proportion of base (CaO) to acid (SiO_2 and Al_2O_3) should not be greater for a sound cement, than the ratio represented by the following equation:—

$$\frac{CaO}{SiO_2 + Al_2O_3} = 2.75$$

and this result is arrived at by the mixing of the raw materials in definite proportions, as already described. This equation is based on the atomic weights of the constituents, and not on percentages, and the method of calcination will be explained under the heading of "Testing—Chemical Composition."

An important improvement, brought about by the rotary process, is the elimination of the ash from the fuel from the cement clinker. In the older processes, the ash from the coke and coal used for calcination must necessarily remain intermixed with the clinker in the kiln, from which it cannot be removed; whereas in the rotary process the fine ash derived from the coal is carried away out of the kiln, and does not contaminate the clinker.

Final Process.

The third and final process of manufacture is, like the first, entirely of a mechanical nature. The clinker, as produced by calcination in small pieces, is an absolutely inert material, and no chemical combination with water can take place until the clinker has been reduced by some mechanical means to the condition of a fine powder. This is a very important feature in the manufacture, as it is well known that the chemical action of the cement when subsequently gauged with water is in direct proportion with the fineness of the particles; the smaller the particles the greater the chemical activity, and, therefore, the cementatious value as a material of construction. For this reason, the high-class, finely-ground cements on the market are frequently much more economical in use, owing to increased covering power, notwithstanding the higher price which is demanded for these high-grade cements.

The reduction to powder of the cement clinker is obtained by means of several classes of machinery, all of a heavy and powerful kind, necessitated by the extreme hardness and refractory nature of the material pulverised.

Modern Machinery.

The method of grinding with millstones has been superseded by many kinds of modern machinery, such as mills of the vertical and horizontal edge-runner type; but the class of machinery mostly used for very fine grinding is represented by the revolving tube system containing steel balls and flint pebbles, the mill containing the steel balls being described as the "ball mill," and the latter with pebbles as the "tube mill." The ball mill, as the preparatory grinder, consists of a revolving cylindrical chamber, the circumferential ends being set at an angle to the circumference, forming a series of steps as the mill revolves. The steel plates forming these ends are perforated, and as the mill revolves with a charge of two or three tons of steel balls rolling on the bottom and falling from step to step, the cement introduced is crushed by the rolling and falling action of the balls to a coarse powder, in which condition it passes through the perforations in the plates and falls on to a series of sieves—that fine enough to pass through these sieves constitutes the output of the mill—the coarser particles rejected by the sieves returning automatically beneath the steps as the mill rotates into the interior of the mill for further reduction.

The material from this mill is then introduced into a finishing mill or tube mill—a plain revolving cylinder, about 26 feet long and 5 feet diameter, carrying a charge of round stone flint pebbles, sufficient to about half fill the mill. As this mill revolves, the cement (in a coarsely-ground state, as delivered from the mill) is crushed between the large mass of rolling stones, and finally leaves the mill after passing from one end to the other, during the whole time subject to attrition between the stones themselves and between the stones and the interior steel lining of the mills.

(To be continued.)

The Stockport Education Committee is considering a report of the medical officer, dealing with the attendance of school children and their health and cleanliness. The suggestion is made that lady visitors should be employed, and medical certificates in cases of absence from school should be paid for by the education authority.

TO EDUCATION COMMITTEES AND MUNICIPAL AUTHORITIES.

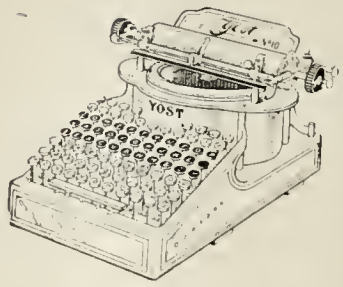
YŌST

THE TYPEWRITER FOR BEAUTIFUL WORK.

NO RIBBON.

NO SHIFT-KEY.

NO COMPLICATIONS.



85 CHARACTERS.

LIGHT TOUCH.

QUIET AND CONVENIENT.

Send for Booklets "The Yost in Schools" and "The Yost in the Municipal Offices."

THE YŌST TYPEWRITER COMPANY, Ltd., 50, Holborn Viaduct, London, E.C.

BRANCHES IN ALL LARGE TOWNS.

"SANALENE"

One Gallon covers from 60 to 70 sq. yds. on a prepared surface.

The Latest Production.

A PERFECT ENAMEL PAINT.

Flows Freely, Hard Wearing, Easily Washed and Polished.

"SANALENE"

FOR PRACTICAL WORK BY PRACTICAL USERS.

Supplied in White or Colours, as desired.

BLUE LABEL

For Inside Use.

RED LABEL

For Outside Use.

For Colour List and Full Particulars, apply to—

ASPINALL'S ENAMEL, Ltd.,

NEW CROSS, LONDON, S.E.

THE SURVEYOR AND CONTRACTOR.

Schemes in Progress and Suggested. Tenders Open. New Inventions for Local Government Enterprises.

Tenders Wanted.

Aqueduct, Merthyr Tydfil U.D.C.
April 18.—For the construction of certain waterworks, consisting of an aqueduct from the existing Neuadd reservoirs in the Taff Fechan Valley, and extending for a distance of abont 16 miles towards the southern boundary of the district. Mr. T. Aneuryn Rees, Clerk to the Council.

Baths, Newcastle-under-Lyme Baths Committee.
April 26.—For erection of the King's Memorial Baths, Brunswick Street. Mr. Joseph Griffith, Town Clerk.

Bedsteads, Newport (Mon.) Lunacy Visiting Committee.
April 18.—For the supply and delivery of from 300 to 400 Gale's patent Lawson Tait bedsteads. Mr. Albert A. Newman, Town Clerk.

Bookbinding, Wandsworth Borough Council.
April 19.—For bookbinding at the public libraries in the borough to March 31, 1906, 1907, or 1908, at the option of the Council. Mr. Henry George Hills, Town Clerk.

Bricks, Tewkesbury Town Council.
April 17.—For the supply of 9,000 common Staffordshire blue bricks. Mr. H. A. Badham, Town Clerk.

Building, East Sussex County Council.
April 17.—For the erection of the proposed new offices in Fisher Street, Lewes. Mr. Fred. J. Wood, County Surveyor.

Building Sites, Stepney Borough Council.
May 1.—Building sites of not less than 16,500ft. super within the borough of Stepney, suitable for the erection of a council chamber and municipal offices. Mr. George W. Clarke, Town Clerk, Municipal Offices, 15, Great Alie Street, Whitechapel, E.

Building, Dalton-in-Furness U.D.C.
April 24.—For the erection of a manager's house, weigh office, and other buildings at their Askam-in-Furness gasworks. Mr. William Richardson, Architect and Surveyor.

Building, Bradford Corporation.
April 20.—For the construction of the station buildings (four stations) on the line of the Nidd Valley Light Railway. Mr. Frederick Stevens, Town Clerk.

Building, Dalton-in-Furness U.D.C.
April 24.—For the erection of a manager's house, weigh office, and other buildings, at their Askam-in-Furness Gas Works. Mr. William Richardson, Architect and Surveyor to the Council.

Building, Coventry Corporation.
April 17.—For the erection of buildings at their Foleshill Works for carburetted water-gas plant. Mr. Fletcher W. Stevenson, Engineer and Manager.

Building, Southport Education Committee.
May 1.—For the whole of the works connected with the erection of the Chestergate new schools. Mr. Arthur Lawton, Secretary.

Cast-Iron Water Mains, Llantrisant R.D.C.
April 18.—For providing and laying about 2,300 lineal yards of 3-inch diameter cast iron water mains between Llantrisant and Beddan, together with all necessary sluice, fire, and air valves, &c. Mr. Gomer S. Morgan, Engineer's Office, School Street, Pontyclun.

Cement, Liskeard Town Council.
April 17.—For supplying about 300 tons of best English Portland cement, to be used in paving the new cattle market. Mr. H. Lyde Caunter, Town Clerk.

Chairs, Skipton U.D.C.
April 17.—For the supply of 72 chairs for the town hall. Mr. Richard Wilson, Clerk to the Council.

Clothing, Ipswich Electric Supply Committee.
April 20.—For supply of uniforms for the inspectors, motormen, and conductors of the tramway service for period ending March 31, 1906. Mr. Frank Ayton, Chief Engineer.

Coal, Johnstone Town Council.
April 21.—For the supply of about 7,000 tons of gas coal, splint and cannel, to be delivered at their siding, Laigh Cartside, carriage paid, in such quantities as may be required for the year from May 15; also for about 200 tons of lime. Mr. R. C. Stevenson, Town Clerk.

Coal, Darlington Corporation.
April 18.—For the supply of 35,000 tons of freshly-wrought gas coals, delivered at the gasworks siding, as required, during the ensuing twelve-months. Mr. H. G. Steavenson, Town Clerk.

Coal and Slack, Wakefield Corporation.
April 17.—For the supply of above to their several departments within or near the city. Mr. W. W. Greenhalgh, Town Clerk.

Coal, Luton Town Council.
April 18.—For the supply and delivery of above at the electricity works. Mr. George Sell, Town Clerk.

Coal, Wallasey U.D.C.
April 20.—For the supply of about 5,000 tons of round cannel, and about 29,000 tons of screened gas coal. Mr. H. W. Cook, Public Offices, Egremont.

Coal, Kent County Asylums Committee.
April 20.—For the supply of 3,400 tons of steam coal, 1,200 tons of household coal, 1,025 tons of gas coal, and 85 tons of baker's coal, for the Asylums at Barming Heath and Chartham. Mr. Francis R. Howlett, Clerk to the Committee, 9, King Street, Maidstone.

Coal, London County Council.
May 3.—For the supply and delivery of about 127,000 tons of coal of various descriptions, and 14,000 tons of coke from 1st July, 1905, to 30th June, 1906, for the several offices, schools, stations, steamboats, &c., under the Council's control. Mr. G. L. Gomme, Clerk to the Council, Spring Gardens, S.W.

Coal, &c., Alloa Town Council.
April 18.—For the supply of splint coal, coking coal, nuts, washed dross, and lime, at a rate per ton; benzole, at a rate per gallon, in contractor's barrels; also tar and ammoniacal liquor, at a rate per gallon. Mr. James W. Dickie, Town Chamberlain.

Coke, Hastings Corporation.
April 17.—For the supply and delivery of about 400 tons of unbroken and 120 tons of broken gasworks coke, to be delivered to Hastings railway station, within the ensuing 12 months, in such quantities as may be required by the borough engineer. Mr. Ben. F. Meadows, Town Clerk.

Condenser, Aberdeen Corporation.
April 19.—For the supply of one-surface condenser, with air pump, oil separator, &c., for the electricity department. Mr. J. A. Bell, City Electrical Engineer.

Demolition, &c., Bootle Borough Council.
April 19.—For the demolition of the buildings in Falkner Terrace and Falkner Crescent, Derby Road, including purchase and removal of the old materials. Mr. J. Henry Farmer, Town Clerk.

Designs for Technical Institute, Rochester Corporation.
May 15.—Three premiums are offered for above, viz., 50, 20, and 10 guineas. Mr. Apsley Kennette, Town Clerk.

Designs for Libraries, Cardiff Corporation.
June 17.—From architects who have been in practice not less than six months as principals in Cardiff, for branch libraries to be erected at Canton and Cathays.

Designs for Library, Radcliffe U.D.C.
April 29.—Premiums of £50, £30, and £20 will be awarded for the most successful designs for above. Mr. S. Mills, Clerk to the Council.

Designs for Libraries, King's Norton U.D.C.
April 26.—Architects resident in or practising within the city of Birmingham may on certain conditions enter into above architectural competition for a library to be erected on the site in Church Hill, King's Norton. Mr. Edwin Docker, Clerk to the Council, 10, Newhall Street, Birmingham.

Destructor and Flag Plant, Sydney (N.S.W.) Municipal Council.
May 30.—For the supply and erection of a six-cell refuse destructor, and for a flag-making plant, at Moore Park, Sydney. See advt. in last issue. Mr. Thomas H. Nesbitt, Town Clerk.

Destructor, Sheffield Corporation.
May 2.—For works required in connection with the erection of a refuse destructor at Primrose Meadows, Heeley. The Chairman of the Health Committee, Town Hall.

Drainage, Liversedge U.D.C.
April 17.—For 12in. pipe surface drainage of Huddersfield Road, from Millbridge to Iron Bridge, together with the necessary manholes, lampholes, and surface gullies; also for 18in. stt channelling and paving repairs. Mr. Frank Langley, Surveyor, Council Offices.

Drainage, Rathdown R.D.C.
April 19.—For the construction of sewage purification works for the Union Workhouse. Patrick Cunniam, Clerk to the Council, Loughlinstown.

Electric Wiring, Erith U.D.C.
April 17.—For the wiring of their car depot and workshops. The Clerk to the Council.

Electric Generating Plant, Clyde Navigation Trustees.
April 17.—For electric power generating and lighting plant for Clydebank Dock. The Manager.

Electric Generating Station, Dublin Port and Docks Board.
May 15.—Tenders invited for above. Mr. N. Proud, Secretary.

Electrical Stores, Wallasey U.DC..
April 27.—For the supply over a period of twelve months from 30th June next of the following among other articles for use at the Electricity Supply Works, Liscard:—Cotton waste, coal-shovels, bolts and nuts, switches, &c., oils, meters, cable and junction-boxes, for bars, &c. Mr. H. W. Cook, Clerk to the Council, Egremont.

Electrical Plant, Cardiff Corporation.
April 17.—Extra high-tension three-phase main switchboard for power station; switchboard for sub-station; motor generators; rotary converters, &c. Mr. J. L. Wheatley, Town Clerk.

Electrical, &c., Apparatus, Plymouth Education Authority.
April 26.—For the supply of apparatus for teaching purposes for the new mechanical and electrical engineering laboratories. Mr. E. Chandler Cook, 18, Princess Square.

Emergency Staircase, East Ham Education Committee.
May 11.—For iron emergency staircase at New Beckton School. See advt. in last issue. Mr. H. C. Padgett, Secretary, Education Office, E.

Extension of Sewer, Epsom R.D.C.
April 25.—For the carrying out of an extension (of about 350 yards in length) of the sewer in the main Sutton Road, Cheam. Mr. W. O. Reader, Clerk to the Council.

Extensions, Barrow-in-Furness Corporation.
April 18.—For the erection and completion of extensions to the electricity works. Mr. C. F. Preston, Town Clerk.

Extension of Tramways, Batley Corporation.
April 17.—For permanent-way construction and paving, overhead equipment, steel poles, &c., feeder cables, conduits, and accessories in connection with the extension of the tramways in Bradford Road. Mr. Jos. Hanson Craik, Town Clerk.

Exhausters, Rochdale Corporation.
April 19.—For the supply, delivery, and erection at their gasworks of two exhausterst each capable of passing 80,000 cubit feen per hour and each coupled direct to its ow engine. Mr. W. H. Hickson, Town Clerk.

Forage, Normanton U.D.C.
April 17.—For the supply of hay, clover, oats, and bran for six months from the 1st May, 1905. Mr. C. B. L. Fernandes, Clerk to the Council.

Furniture, Fulham Guardians.
April 20.—For the supply of furniture, linolenm, and blinds, for their new nurses' home, Fulham Palace Road, W. Mr. E. J. Mott, Clerk to the Guardians.

Furniture, Leeds Guardians.
April 19.—For the supply of 30 bed-room suites for the nurses' home, Union Infirmary, Beckett Street. Mr. James H. Ford, Poor Law Offices, South Parade.

Granite, Desborough U.D.C.
April 25.—For the supply of 500 tons of above, to be delivered at Desborough station in such quantities and at such times as required by the surveyor. Mr. D. J. Diver, Surveyor.

Granite, Southampton Harbour Board.
April 17.—For the supply of about 1,500 tons of 2-in. Guernsey grey granite. Mr. J. E. Pailthorpe, Clerk to the Board.

Hay, Seeds, &c., Nottingham Guardians.
April 19.—For the supply of five tons of hay, five tons of seed, and 20 quarters of crushed oats, to be delivered as ordered at the Bagthorpe workhouse. Mr. G. M. Howard, Clerk to the Guardians.

Hay and Straw, Stourbridge U.D.C.
April 19.—For the supply of above, up to the 30th of September next. Mr. Frederick Woodward, Surveyor, Town Hall.

Incandescent Mantles, Dublin Corporation.
April 26.—For the supply of mantles and 6in. Jena chimneys for street lighting, for the ensuing year to 31st March, 1906. Mr. Henry Campbell, Town Clerk.

Iron and Steel, Sydney (N.S.W.) Public Works Office.
September 1.—For the manufacture, supply, and delivery in the State of New South Wales of all iron and steel required by the Government. The Agent-General's Office, 9, Victoria Street, London, S.W.

Jobbing Work, Glasgow Corporation.
April 18.—For masons', painters', plumbers', gasfitters', ironmongers' work, &c., during the year, from 1st June next till 31st May, 1906. Mr. John Bowers, Town Clerk.

Leather, Metropolitan Asylums Board.
April 19.—For the supply of leather (for boot and shoe making and repairs) in bulk. Mr. T. Duncombe Mann, Clerk to the Board.

Library, Southend-on-Sea Corporation.
April 27.—For the erection of a public library in Victoria Avenue. See advt. in last issue. Mr. William H. Snow, Town Clerk.

Library, Erith U.D.C.
April 17.—For the erection of a public library at Erith. Mr. Charles H. Fry, Bexley Road.

Library, Belfast Instruction Committee.
April 27.—For the erection of a branch free library in the Oldpark Road. Mr. R. Meyer, Acting Town Clerk.

Loan, Truro City Council.
April 19.—For river purposes, on the rates and charges which the Council is authorised to mortgage by the Truro Harbour Order, 1903, the sum of £5,255, repayable by yearly instalments in 40 years. Mr. F. Parkin, Town Clerk.

Materials, Dundee Water Commissioners.
April 17.—For the following materials, &c., for the year ending 14th May, 1906;—Special castings, sluice valves, brass work, blacksmith work, rope yarn, and hring. Mr. George Baxter, Water Engineer's Office, 93, Commercial Street.

Materials and Cartage, Hambledon R.D.C.
April 22.—For the supply of good materials for use on the roads in the districts, and for carting same. Mr. Ferdinand Smallpeice, Clerk to the Council, 138, High Street, Guildford.

Meat Extract, &c., Islington Guardians.
April 26.—For the supply of extract of meat, port wine at £30 per pipe, and brandy. Mr. Edwin Davey, Clerk to the Guardians, St. John's Road, Upper Holloway, N.

Painting, Stafford Corporation.
April 17.—For above at the Municipal Cottages, in Broad Eye, and Crooked Bridge Road. Mr. M. F. Blakiston, Town Clerk.

Park Requisites, Bradford Corporation.
April 20.—For the supply of plants, trees, garden-pots, &c. Mr. Frederick Stevens, Town Clerk.

Painting, &c., Southwark Guardians.
April 27.—For certain white-washing, cleaning, and painting work at the Infirmary, East Dulwich Grove. Mr. Howard E. Jones, Clerk to the Guardians, John Street West, S.E.

Painting, &c., Rochdale Corporation.
April 18.—For the painting and decorating of the waterworks office, and premises. Mr. W. H. Hickson, Town Clerk.

Paving, Stratford and Wolverton R.D.C.
April 18.—For the reconstruction of a portion of the footway on the south side of Church Street, Wolverton, about 167 yards super., with artificial stone. Mr. W. R. Parrott, Clerk to the Council, High Street, Stony Stratford.

Paving, &c., Heath Town U.D.C.
April 25.—For the paving, kerbing, channelling, and making generally of Nine Elms Lane. Mr. J. W. E. Stirk, Clerk to the Council.

Piggeries, Southampton Guardians.
April 20.—For the erection of a group of piggeries on the site of the workhouse infirmary at Shirley Warren. Mr. D. P. Gwillim, Clerk to the Guardians.

Pipes, Leeds Corporation.
April 17.—For the supply of cast-iron pipes, retort castings, &c. Mr. R. H. Townleys, General Manager, Gas Offices.

Plans for Dwellings, Norwich Corporation.
May 8.—The Housing Committee offer a premium of 20 guineas for the best set of above. Mr. Arthur E. Collins, City Engineer.

Police and Fire Station, Windsor Town Council.
April 27.—For erection of above, in St. Leonard's Road. Mr. E. Cecil Durant, Town Clerk.

Potatoes, Stone Guardians.
April 18.—For the supply of three tons, to be delivered free in ton lots, as required. Mr. J. Buckley Norris, Clerk to the Guardians.

Printing, Bristol Corporation.
April 27.—For printing the minutes of the Council and reports of committees for the period of three years from May 1, 1905. Mr. Edmund J. Taylor, Town Clerk.

Pumping Works, &c., Bishops Stortford U.D.C.
May 8.—For supplying and fixing two Lancashire boilers, for supplying and fixing steam pumping engine and pumps, for supplying and fixing gas pumping engine and pumps, together with suction gas plant, complete. Mr. Thos. Swatheridge, Clerk of the Council.

Railing and Gates, Bradford Corporation.
April 20.—For the supply and erection of wrought-iron railing and gates at the Girlington Recreation Ground. Mr. Frederick Stevens, Town Clerk.

Reservoir, Portadown and Banbridge Water Board.
April 17.—For the construction of a storage reservoir of about 75,000,000 gallons capacity at Foffanyreagh, county Down. Mr. William Wilson, Clerk to the Board.

Road Material, Norton U.D.C.
April 18.—For the supply of unbroken and broken whinstone, slag, and other material suitable for the repair of roads within the district to March 31st, 1906. Mr. William Botterill, Clerk to the Council.

Road Materials, Hoxne R.D.C.
April 27.—At per ton, for such quantities of granite and broken flint as they may require during the year ending the 31st March, 1906. Mr. N. B. Garrard, Clerk to the Council.

School Furniture, East Ham Education Committee.
April 17.—For the furniture required for Fourth Avenue School enlargement. See advt. in last issue. Mr. H. C. Padgett, Secretary, Education Office, E.

Sewerage Works, Smethwick Corporation.
April 17.—For various materials, &c., in connection with the Londonderry Lane sewer, the West Smethwick sewer, and the High Park Road Culvert. Mr. C. J. Fox Allin, Borough Surveyor.

Sewerage, &c., Kenilworth U.D.C.
April 18.—For the construction of covered sewage tanks, filters, pipe sewers, &c. Mr. J. J. Willington Wilmshurst, Clerk to the Council.

Sewers, &c., Market Bosworth R.D.C.
April 19.—For providing and laying about 235 yards of 9in. earthenware socket-pipe sewers, together with manholes, settling tank, trickle bed, &c. Mr. Frank Bouskell, Clerk to the Council.

Sewering, &c., Hornsey Town Council.
April 17.—(1) For the construction of additional bacteria beds, sedimentation tanks, &c., at their sewage farm, Coppett's Road, Muswell Hill; and (2) for sewering, levelling, paving, metalling, kerbing, channelling, and making good Duke's Avenue (3rd section), Muswell Hill. Mr. F. D. Askey, Town Clerk, Southwood Lane, Highgate, N.

Sewers, Bromley R.D.C.
May 5.—For the construction of the following works:—8,013 lineal yards of 9in. stoneware pipe sewer; 1,928 lineal yards of 12in. stoneware pipe sewer, together with manholes, flushing tanks, and other works in connection therewith. Mr. Edward Haslehurst, Clerk to the Council.

Steam Generator, Stockport Corporation.
April 26.—For the supply of one 500-k.w. steam generator. Mr. Robert Hyde, Town Clerk.

Stone and Ashes, Goole R.D.C.
April 18.—For supply of above for their district roads for year ending March 31, 1906. Mr. George England, Clerk to the Council.

Street Repairing, Wanstead U.D.C.
May 3.—For making up the street known as Dover Road. Mr. William Blewitt, Clerk to the Council.

Street Alterations, Huntingdon U.D.C.
April 19.—For street piling and other alterations at the bathing sheds. Mr. E. Borissow, Borough Surveyor.

Swimming Baths, St. Albans Corporation.
April 17.—For the erection of above in Cotton Mill Lane. Mr. A. H. Debenham, Town Clerk.

Town Hall Restoration, Shoreditch Borough Council.
April 18.—Tenders from responsible building firms for the above works. Mr. H. Mansfield Robinson, Town Clerk.

Tramways Extension, Batley Corporation.
April 17.—For the works in connection with the extension of the permanent way and paving, overhead equipment, steel poles, &c., feeder cables, conduits, and accessories. Mr. J. Hanson Craik, Town Clerk.

Turret Clock and Case, Camberwell Borough Council.
April 29.—For an English-made turret timepiece clock, with two 3ft. 6in. dials; for a clock case, to be made of English oak; and for fitting up said clock in case standing out from external wall bracket, at Old Kent Road Baths. Mr. C. William Tagg, Town Clerk.

Tuning, &c., Kent Education Committee.
April 22.—For the tuning of and carrying out of small repairs to school pianos and harmoniums in the committee's schools. Mr. F. Crook, 44, Bedford Row, W.C.

Uniforms, Cape Colony Government.
May 10.—For the supply during the five years commencing on July 1, 1905, of uniforms for the police in the Cape Colony. The Agent-General, No. 100, Victoria Street, Westminster, S.W.

Water-Piping, Totnes R.D.C.
April 19.—For providing and laying 970 feet of inch galvanised iron water-piping, building small storage tank, and other work, at Cornworthy. Mr. F. K. Windeatt, Clerk to the Council.

Waterworks, Llantrisant R.D.C.
April 18.—For the construction of a reservoir and filter beds, &c. Mr. Gomer S. Morgan, Engineer's Office, School Street, Pontyclun.

Waterworks, Wick Town Council
April 24.—For the work to be done in providing an increased and improved water supply. Mr. Hector Sutherland, Town Clerk.

Waterworks, Hemsworth R.D.C.
April 19.—For carting, excavating for, laying, and jointing of about 1,271 yards of 3 in. water mains, together with the fixing of any hydrants and valves, or the carrying out of any other work in connection with same. Mr. John Scholefield, Clerk to the Council.

Waterworks, Castleblayney R.D.C.
April 17.—For constructing and carrying out the Ballybay Waterworks. Mr. Bernard Coyle, Clerk to the Council.

Appointments Vacant.

Assistant Accountant, Acton U.D.C.
April 18.—Salary £100 a year to commence. See advt. in this issue. Mr. Samuel Ford, Accountant to the Council.

Assistant Schoolmistress, Newcastle-upon-Tyne Education Committee.
April 18.—At the pupil teachers' centre; salary £120 a year, rising to £140. Mr. Alfred Goddard, Education Offices, Northumberland Road.

Assistant Clerk, Metropolitan Water Board.
April 29.—As assistant committee clerk. Salary £140 a year to commence. See advt. in this issue. Mr. A. B. Pilling, Clerk to the Board, Savoy Court, Strand, W.C.

Assistant Relieving Officer, Shoreditch Guardians.
April 25.—Salary £110 a year, rising to £125. Mr. Robert Clay, Clerk to the Guardians, 213, Kingsland Road, N.E.

Assistant Nurse, Lancaster Guardians.
April 22.—To take day and night duty each alternate month; salary £22 a year, with an allowance of 15s. a quarter for approved indoor uniform. Mr. William D. Ball, Clerk to the Guardians.

Asylum Attendant, Bradford Guardians.
April 18.—Salary £25 a year, rising to £30. Mr. George M. Crowther, Clerk to the Guardians.

Charge Nurse, Bermondsey Guardians.
April 18.—At the infirmary, Lower Road, Rotherhithe. Salary £30 a year, rising to £35, with rations, lodging, washing, uniform, and £4 in lieu of beer. Mr. E. Pitts Fenton, Clerk to the Guardians.

Chief Clerk, Aston Manor Borough Council.
April 17.—In the borough treasurer's office. Salary £120, rising to £150. Mr. Alfred Evans, Borough Treasurer.

Chaplain, Omoa Poorhouse Committee.
April 22.—To attend poorhouse. Salary £15 a year. Mr. John Logan, Clerk to the Committee, Wishaw.

Clerk, St. Pancras Borough Council.
April 19.—In the Town Clerk's Department. Salary £100 a year, rising to £120. Mr. C. H. F. Barrett, Town Clerk.

Cook, Malden Guardians.
April 25.—Salary £25, in addition to board, lodging, washing, and beer money. Mr. Alfred W. Freeman, Clerk to the Guardians.

Director of Education, Rhondda U.D.C.
May 1.—Salary £400 a year. See advt. in this issue. Mr. W. P. Nicholas, Clerk to the Council.

Examiner in Navigation, Local Marine Board of London.
May 5.—As junior examiner; salary £200 a year, rising to £250. The Secretary, Dock Street, E.

Farm Manager, Banbury Borough Council.
April 18.—As resident manager of their sewage farm of 250 acres; salary £100 a year, and a residence on the farm, free of rent and taxes. Mr. Oliver J. Stockton, Town Clerk.

General Servant, Stafford Guardians.
April 22.—Strong, active young woman as above, at their nurses' home; salary £16 a year, with apartments, rations, and indoor uniform. Mr. William Morgan, Clerk to the Guardians.

Highway Surveyors, Settle R.D.C.
April 19.—Two for the northern and southern divisions of their district; salary of each officer to commence at £110 a year and rise to £120. Mr. T. E. Pearson, Clerk to the Council.

Home Sister, Leeds Guardians.
April 28.—At the infirmary in Beckett Street; salary £36 a year, with lodgings, rations, washing, and materials for uniforms. Mr. James H. Ford, Clerk to the Guardians.

Inspector of River, Thames Conservancy.
April 20.—As deputy inspector of the river between Leehdale and Clifton Bridge; salary £130 a year to commence. Mr. R. Philipson, Secretary.

Industrial Trainer, Ticehurst Guardians.
April 17.—As boys' caretaker and to teach tailoring; salary £30, together with rations, lodging, and washing. Mr. J. C. Lane Andrews, Clerk to the Guardians.

Junior Clerks, St. Pancras Borough Council.
April 19.—Three, age 18 to 21 years; salary £50 a year, rising to £80. Also boy clerk, age 14 to 16 years; salary 10s. a week, rising to £60 a year. Mr. C. H. F. Barrett, Town Clerk.

Laundress, Prestwich Guardians.
April 18.—Salary £30 a year, with board, residence, and uniform. Mr. Edward W. Ogden, Clerk to the Guardians, Cheetham Hill Road, Manchester.

Linen Checker, Leeds Guardians.
April 19.—Experienced woman as above at the infirmary in Beckett Street; salary £25 a year, with lodging, rations, washing, &c. Mr. James H. Ford, Clerk to the Guardians.

Librarian, Birkdale U.D.C.
April 22.—Salary 30s. a week. Mr. J. F. Keeley, Clerk to the Council.

Master's Clerk, Wakefield Guardians.
April 22.—Salary 21s. a week. Mr. H. Beaumont, Clerk to the Guardians.

Medical Officer, Omoa Poorhouse Committee.
April 22.—To attend inmates; salary £50 a year, to cover medical attendance and medicines. Mr. John Logan, Clerk to the Committee.

Medical Officer, Tipperary Guardians.
April 20.—For the Emly dispensary district; salary £100 a year, together with the usual vaccination fees. Mr. Joseph Gubbins, Clerk to the Guardians.

Nurses, Omoa Poorhouse Committee.
April 22.—Two certificated. Salaries £35 and £30 a year, with board. Mr. John Logan, Clerk to the Committee.

Porter and Portress, Bradford Guardians.
April 18.—Must be man and wife; salaries: porter £27, rising to £32; portress £17, rising to £22; with apartments, rations, uniform, and washing. Mr. George M. Crowther, Clerk to the Guardians.

Porter, Swindon Guardians.
April 18.—Salary £25 a year, rising to £30, with rations, washing, and furnished apartments. Mr. John P. Kirby, Clerk to the Guardians.

Relief Foster Mother, Wakefield Guardians.
April 22.—Salary £23, rising to £25, with furnished apartments, rations, and other usual allowances. Mr. H. Beaumont, Clerk to the Guardians.

Solicitor, London County Council.
May 8.—To be responsible generally for the conduct of the Council's legal work; salary £2,000 a year. M. G. L. Gomme, Clerk to the Council.

Surveyor and Inspector of Nuisances, Alton U.D.C.
April 19.—Salary £90 a year. Mr. William Trimmer, Clerk of the Council.

Superintendent Nurse, Strood Guardians.
April 25.—Salary £40 a year, with apartments, rations, washing &c., but no beer nor money allowance in lieu thereof. Mr. J. E. Povey, Clerk to the Guardians.

Surveyor, Keighley R.D.C.
April 19.—A working surveyor for the parish of Morton East and West; wages 30s. a week. Mr. J. N. Clarkson, Clerk to the Council.

Surveyor's Clerk, Folkestone Corporation.
April 19.—As second clerk in the Borough Engineer and Surveyor's office; salary £65 a year. See advt. in this issue. Mr. A. E. Nichols, Borough Surveyor.

Teachers of Domestic Subjects, London County Council.
April 26.—As above, in elementary schools. Salary £70 a year, rising to £112. Mr. G. L. Gomme, Clerk to the Council.

Unattached Visitor, London County Council.
April 19.—Salary £80 a year. Mr. G. L. Gomme, Clerk to the Council, Education Offices, Victoria Embankment, W.C.

Ward Sister, Woolwich Guardians.
April 18.—At the Plumstead Infirmary; salary £30 a year, rising to £36, with board, lodging, washing, and uniform. Mr. Tom Cutter, Clerk to the Guardians.

Women Attendants, Ormskirk Guardians.
April 19.—Two at the new imbecile block at their workhouse; salary £25 a year, rising to £30, with rations, apartments, and uniform. Mr. A. Dickinson, Clerk to the Guardians.

Patents of the Week.

BY A CHARTERED PATENT AGENT.

Out of 569 patents applied for during the week ended 8th April, the following are selected as being likely to be of interest to our readers.

6974. Johnston. Improvements in the means of suspending lamps from poles and the like.
6992. Kerr. Improvements in controlling apparatus in connection with fluid gauging, registering, and measuring apparatus, and the like.

The Associated Portland Cement Manufacturers (1900), Ltd.

The following are amongst the Brands of

HIGHEST GRADE PORTLAND CEMENT

Now Owned by this Company:—

"J. B. WHITE & BROS.," "HILTON, ANDERSON & CO.,"
Francis' "NINE ELMS."

The Company has unequalled facilities for delivery to any part of the Kingdom.

OFFICES: DIXON HOUSE, 72, FENCHURCH ST., LONDON, E.C.

7003. Hinden. Apparatus for automatically igniting and extinguishing gas lamps.
7008. Ottinger. Improvements in safety circuit closers.
7060. Brossbank. Improvements in valves for water closets.
7066. Sutcliffe. Improved means for joining flushing-pipes to closet basins, or for making like connections.
7070. Barker (Collyer and others, U.S.A.). Improved street watering-cart.
7072. Air. Improvements in standards for wire fencing.
7091. Keefer. Improvements in and relating to concrete structures.
7118. Deswarte. Improvements in and relating to means for facing banks, batters, dykes, and the like.
7148. The British Thomson-Houston Company, Limited (General Electric Company, U.S.A.). Improvements in and relating to electric motor control systems applicable for electrically propelled trams or vehicles.
7149. The British Thomson-Houston Company, Limited (General Electric Company, U.S.A.). Improvements in and relating to electric motor control systems applicable for electrically propelled trams or vehicles.
7150. The British Thomson-Houston Company, Limited (General Electric Company, U.S.A.). Improvements in and relating to systems of electric motor control applicable for electrically propelled trams or vehicles.
7157. Dickinson. Improvements in or connected with the regenerative control of the electrically propelled vehicles.
7176. John Greenwood and Son. Improved method of operating the points of overhead trolley wires, and also of the rails for electric tramways.
7183. Debney. Improvements in joints for uniting soil pipes to closet basins or traps.
7203. Bennett and Twining. A new or improved system of lining railway (or and) other tubular tunnels.
7239. Zipkes. Improvements in the method of making ferro-concrete (reinforced beton) ceiling beams and bridges and the like.
7258. Townsend and Moore. Improvements relating to water power installations.
7272. Ducellier. Improvement in conducting foundation work and mason work under water.
7277. Golding. An improved case and cover for fire alarms, electric bell calls, and the like.
7280. Whitaker and Whitaker Brothers, Limited. Improvements in or relating to excavating apparatus.
7340. Warmington. Improvements in and relating to pipes for sewers and drains, and in branch connections therefor.
7360. Dawson, Clark and Blackmore. An improved device for keeping the trolley-rope of an electric car tight, when the boom is in various positions.
7373. Altman. Improvements in and relating to apparatus for planning pitches, grounds, courts, and the like, for cricket, croquet, lawn tennis, and other games.
7380. Smith, Smith, Walker, Smith and Mayhew. Improvements in or relating to fireproof ceilings and floors.
7384. Mingazzi. Improvements in scaffolding.
7410. Lüftschitz. Improved dust removing or cleansing apparatus.
7470. Laidler. Instantaneous release for drain plugs.
7479. Michel. Improvements in tramway cars.
7502. Griffiths. Improvements in flushing cisterns for water-closets, urinals, and like purposes.

TENDERS WANTED
(Continued.)

Advertising on Tramcars, Walthamstow U.D.C.
April 28.—For advertising on their electric trams. See advt. in this issue. Mr. C. Sydney Watson, Clerk to the Council.

Cleaning, &c., Aylsham Guardians.
April 18.—For cleaning, whitewashing, and colouring eight wards and rooms, and two landings, at the workhouse. Mr. Henry J. Gidney, Clerk to the Guardians.

Furnace Slag, Houghton-le-Spring R.D.C.
April 20.—For supplying machine-broken blast furnace slag and slag riddlings. The Chairman of the Highways Committee.

Materials, Walsoken U.D.C.
April 26.—For the supply of 650 tons of granite, 350 tons of iron slag, 170 tons of Whittlesey fine gravel, and 630 tons of broken Wymondham gravel or Peterborough stone. Mr. James Kerridge, Surveyor, 118, Norwich Road.

Materials, &c., Wantage R.D.C.
April 30.—For supply of hand-picked stones, 18 bushels to the load, gravel and chalk, and rubble at per yard. The District Surveyor, East Ilsley.

Materials, March U.D.C.
April 17.—For the supply of 2,000 tons of granite, broken to 2½in. and 1¾in., 800 tons of best Wymondham or Lakenheath gravel, and 200 tons of best iron slag, to be delivered at March; and 20ft. and 16ft. drains. Mr. Charles Greenwood, Clerk to the Council.

Painting, &c., Leek U.D.C.
April 20.—For painting work, &c., at its cemetery. The Chairman of the Sanitary Committee.

Painting, Metropolitan Asylums Board.
April 19.—For external and internal painting works at the Grove Fever Hospital, Tooting, S.W. Mr. T. Duncombe Mann, Clerk to the Board.

Painting, &c., Stratford-upon-Avon Town Council.
April 24.—For painting and repairs at the cemetery, Evesham Road. Mr. Robert Dixon, Borough Surveyor.

Printing, Ealing Borough Council.
May 1.—For printing the burgess lists and burgess roll of the borough for one or three years (alternately). Mr. George E. Brydges, Town Clerk.

Road Materials, &c., Rutland County Council.
April 20.—For the supply of about 700 tons of broken granite, granite chippings, and screenings: and for team labour. Mr. B. A. Adam, Clerk to the Council, Oakham.

Sewer, Glasgow Corporation.
May 2.—For the work necessary in the construction of the sewer extending from McNeil Street to Rutherglen Road. See advt. in this issue. Mr. John Bowers, Town Clerk.

Street Works, Stanley U.D.C.
April 21.—For the making-up of Back Towneley Street. Mr. John G. Ridley, Clerk to the Council.

Watering, Alderley Edge U.D.C.
May 1.—For watering roads in its district for twelve months from May 1, 1905. Mr. Harold Sheldon, Surveyor.

APPOINTMENTS VACANT
(Continued.)

Assistant Nurse, Holborn Guardians.
Salary £18 a year, rising to £20, and £2 in lieu of beer or mineral waters (if desired). The Matron, City Road Workhouse, 1A, Shepherdess Walk, E.C.

Assistant Attendant, Bradford Guardians.
April 18.—Experienced man to act as assistant attendant on the male sane epileptics in their workhouse; salary £25 a year, increasing to £30. Mr. George M. Crowther, Clerk to the Guardians.

Caretakers, Chelmsford Corporation.
April 20.—Man and wife as above, at the public library and museum. Salary £35 a year, with fuel, light, and residence on the premises. Mr. Thomas Dixon, Town Clerk.

Caretakers, Penistone Hospital Committee.
April 24.—Man and wife at the Infectious Hospital, Hoyland Moor. Joint wages a guinea per week, with apartments and rations found. Mr. William Dransfield, Clerk to the Committee.

Draughtsman, Metropolitan Asylums Board.
April 17.—As temporary third-class draughtsman, in the department of the engineer-in-chief, at a salary of £75 a year. Mr. T. Duncombe Mann, Clerk to the Board.

Hall Porter, Isle of Wight Asylum Committee.
April 19.—A single man as above; must be good writer and willing to make himself generally useful; salary £30 a year, with board, lodging, washing, and uniform. Mr. James H. Green, Clerk to the Committee.

Head Laundress, Plaistow Fever Hospital Committee.
Must be experienced in the management of a steam laundry; salary £40 a year.

Inspector of Nuisances, Uxbridge R.D.C.
April 26.—Salary £100 a year, inclusive of all expenses except stationery and postage, but an office will be provided. Mr. Charles Woodbridge, Clerk to the Council.

Kitchenmaids, London County Asylum Committee.
At the Asylum, Bexley, Kent; wages £18 10s. a year, rising to £24 10s., with board, lodging, washing, and uniform; also (after passing three months' probation) 10s. per quarter "good conduct money"; weekly leave equal to one day, annual leave for first year (after completion of probation) six days, for second year twelve days, for third and successive years fourteen days. The Medical Superintendent.

Market Superintendent, West Hartlepool Corporation.
April 18.—Wages £1 6s. a week, with house, coal, and gas found. Mr. Higson Simpson, Town Clerk.

Librarian, &c., Chelmsford Corporation.
April 20.—As librarian and curator for its public library and museum. Salary £150 a year, without residence. Mr. Thomas Dixon, Town Clerk.

Medical Officer, Auckland R.D.C.
May 17.—As medical officer of health for its district; salary £350 a year, rising to £500. Mr. Sam Adams, Clerk to the Council.

Sanitary Surveyor, Auckland R.D.C.
May 17.—As above, for its district; salary £250 a year, rising to £300. Mr. Sam Adams, Clerk to the Council.

"I firmly believe that if the children were well fed our workhouses, gaols, and asylums would soon be empty."
—Sir JOHN GORST, M.P.

ONE CUP of Delicious
Plasmon
Cocoa
Equals in nutriment ½-lb. Beef or Ten Cups of Ordinary Cocoa.
And is Absolutely Free from Chemicals.
Aids Digestion.
Braces the Nerves.
Invigorates the System.
In Tins, 5d., 9d., 1s. 4d., and 2s. 6d.

Municipal Officers' Guide to Contractors, &c.

ASPHALTE.
THE LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

BUILDERS' & SANITARY GOODS.
YOUNG & MARTEN, LTD.,
Stratford, E.

CALORIFIERS.
ROYLES LTD.,
Irlam, near Manchester.

CARTOONS.
Specialists in Photo.-Litho,
Photo-Copies, and Sun Prints,
VACHER & SONS. Westminster.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FIREPROOFERS OF ALL TEXTILE FABRICS.
ARMFIELD & SONS.
54, Ebury Street, S.W.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GARDEN FURNITURE.
S. CLARK & CO.,
Compton Works, Canonbury Road, N.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

MOTOR OMNIBUSES AND OTHER MUNICIPAL VEHICLES.
STRAKER & MACCONNELL, LTD.,
27A, Old Bond Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551, Victoria.
Lithographers, Tothill Street,
Westminster. (Est. 1860.)

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
Mr. A. A. GREEN,
1C, Grosvenor Mansions,
Victoria Street, London, S.W.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

WHICH IS STEADILY GROWING IN

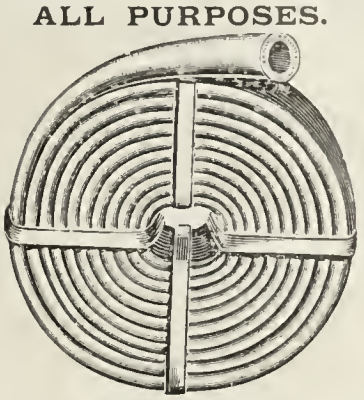
CIRCULATION AND INFLUENCE.

SHEATH BROTHERS,

India Rubber Hose,

SUCTION & DELIVERY FOR ALL PURPOSES.

BOROUGH COUNCILS AND RAILWAY COMPANIES.

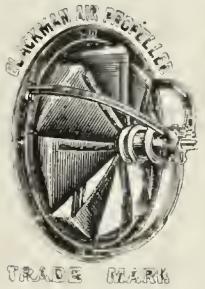


WASHING URINALS AND FLUSHING SEWERS.

87, CITY ROAD, LONDON, E.C.

BLACKMAN

ELECTRIC FANS.



GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

PHENOZONE SOAP

Has been proved to be the most efficient Cleanser for Mosaic and Tesselated Pavements, Marble Floors, Swimming and Slipper Baths, &c., after several years' use in numerous Public Baths, Electricity Stations and other Establishments.

"PHENOZONE SOAP," being in powder, is easy to use; it is also a strong, disinfectant.

SAMPLES FREE.

PHENOZONE SOAP CO.,
Wandsworth, London, S.W.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment,
LONDON, W.C.

Opposite the Temple Station, Metropolitan Distric Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

Bonds are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds Approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary, SHIRLEY FUSSELL.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM

Edited by ROBERT BLATCHFORD.

You should read **"THE CLARION"** for reliab information as to

MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century,

You Must Read **"THE CLARION."**

Send for specimen copy to **"THE CLARION"** Office

72, FLEET STREET, LONDON, E.C.

EQUIFEX DISINFECTORS

SATURATED STEAM (Patent)

Adopted by the Metropolitan Asylums Board for the Brook Hospital; H.M. War Office for the ROYAL VICTORIA HOSPITAL, NETLEY, and by the Governments of India, Victoria, New South Wales, &c.; and the recent Disinfection Stations of the Boroughs of Lambeth, Fulham, Battersea, Brighton, &c., &c.

Rapidity in Operation. Absolute Immunity from Damage by Scorching. Economy in Fuel. Automatic Control and Record of the Work Done.

SPRAY DISINFECTORS FOR ROOMS, &c. Thousands in actual use.

THE PASTEUR FILTER

The only Filter awarded Grand Prix Paris, 1900.

OFFICIAL GOVERNMENT STATEMENT. "Wherever the Pasteur Filter has been applied Typhoid Fever has disappeared."

Lists:—A68, PASTEUR FILTERS; D18, STEAM DISINFECTORS; F25, SPRAY DISINFECTORS.

J. DEFRIES & SONS, Ltd., 146 & 147, HOUNDSDITCH, LONDON, E.C.

COOLEY'S PATENT

DOUBLE DOWEL-PINS
WILL REVOLUTIONISE
WOOD PAVING.

These DOWELS form a solid mass, effectively counteracting vibration, and thereby considerably increasing the life of the road.

For WOOD-BLOCK FLOORING this system of DOUBLE DOWELLING is recommended in all cases where the floors are subject to heavy traffic, such as in Factories, Warehouses, Public Halls, Schools, Sheds and Yards, &c.

FOR PARTICULARS APPLY—THE

WOOD-PAVING EXPANSION-CHANNEL & PIN CO.,

H. Cooley, C.E., *Managing Director.*
154, St. Saviour's Road East, LEICESTER.

ENGLISH INSTRUMENTS.

LATEST. CHEAPEST. BEST.

Some Important Specialities just placed on the market—

CALCULATING SLIDE RULE, by Prof. Perry. SCALE GRADED CURVES, by J. Harrison, M.I.M.E., A.M.I.C.E., Wh.Sc. THE VALOMETER, TRANSPARENT-EDGE T-SQUARES, COLOURS, PENCILS, etc., etc.
Just published, post free, New Edition of CATALOGUE, with Coloured Illustrations.

A. G. Thornton,
PRACTICAL MANUFACTURER,
Contractor to H.M. Government
34, KING ST., WEST,
MANCHESTER, ENG.

DRAWING INSTRUMENTS.

Special make, arrangement, and finish. The most practical and useful to be had, and quite different to what are usually sold.

TEMPERANCE PERMANENT
BUILDING SOCIETY,
4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS

For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years
£1:1:1	18:4	16:4	15:6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager.

BIRKBECK BANK
ESTABLISHED 1851.

2½ per cent. INTEREST
allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST
allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.
STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C

PEARL ASSURANCE CO.,
LIMITED
Chief Offices—London Bridge, City, E.C.

nnual Income	£1,382,000
Funds Increased during year 1904 by ...	£352,000
Claims Paid	£4,263,000

Additional representatives wanted.

P. J. FOLEY, Managing Director.

PATENTS FOR SALE
(ENGLISH AND GERMAN).

One for utilization of the Tide for Motive Power; also patent for Improved Road Paving, or will make other arrangements with any financial gentleman to float a company or syndicate, etc. Circulars containing full particulars will be forwarded by post on application to A. W. Moore 12, Chatham Place, Hackney, N.E.

Demy 8vo, handsomely bound in cloth, gilt, price 3/6; post free, 3/11.

THE MUNICIPAL 1905 YEAR BOOK

ENLARGED AND OFFICIALLY REVISED.

The only Municipal Work of Reference for all the Towns of the United Kingdom.

Full of Valuable Information bearing on the Municipal Trading Controversy.

LONDON: EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, FLEET STREET, E.C.

Printed and Published by Edward Lloyd Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE MUNICIPAL JOURNAL

No. 638.—Vol. XIV. FRIDAY, APRIL 21, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. TWOPENCE.

CONTENTS.

	PAGE
LONDON COUNTY HALL	385
STERILIZED MILK DEPOTS OF PARIS	386
NEWPORT TRANSPORTER BRIDGE	386
LEEDS NEW BATHS	387
OFFICIAL AND PERSONAL ...	388
CHILDREN'S COURTS	389
MUNICIPAL ACTIVITY IN PERTH (AUSTRALIA)	390
RETIREMENT OF MR. A. COTGREAVE, WEST HAM	390
BIRMINGHAM'S HOUSING POLICY	391
POVERTY IN AMERICA	392
EDUCATION AND APPRENTICESHIP	393
EDUCATIONAL NOTES	394
NOTES AND ANSWERS	395
NEW UNEMPLOYED BILL	397
NOTES AND COMMENTS:—	
The Critics and the "Spendthrifts"; Rating of Land Values; Swansea and Its Loans	399
The Unemployed Bill; "Trading" at Manchester; Plymouth and Audit	400
OUT-DOOR POOR RELIEF	401
POVERTY IN POPLAR	402
POOR LAW NOTES	403
ELECTRICITY SUPPLY	405
TRAMWAY TOPICS	407
TRAMWAYS ANALYSES	408
PORTLAND CEMENT (By H. K. G. Bamber, F.C.S.)	411
THE SURVEYOR AND CONTRACTOR	413 &c.

Official Advertisements.

LAMBETH PARISH SCHOOLS.

WANTED at the Lambeth Parish Schools, Elder Road, West Norwood, S.E., a TEMPORARY MASTER'S CLERK and ASSISTANT STOREKEEPER (Male).

Candidates must be thoroughly competent to keep all the books as prescribed by the Poor Law Orders, and preference will be given to those who have had experience in the receipt and issue of stores.

Salary, 35s. per week.

Applications to be made on forms to be obtained from the Master as above.

Official Advertisements.

RHONDDA URBAN DISTRICT COUNCIL.

APPOINTMENT OF DIRECTOR OF EDUCATION.

THE Education Committee of the Rhondda Urban District Council invite applications for the office of DIRECTOR OF EDUCATION. The person appointed will be required to devote the whole of his time to the duties of the office, and to reside within the area of the Council. The salary will be £400 per annum. Candidates must have had actual experience in similar positions, and in practical teaching, as well as in the performance of the several duties set out in the Council's prescribed list. Applications, marked, "Appointment of Director of Education," accompanied by not more than three testimonials, to be delivered to the undersigned, from whom a list of the duties can be obtained, on or before Monday, the 1st day of May, 1905.

Canvassing, directly or indirectly, is prohibited, and will be a disqualification.

W. P. NICHOLAS,
Clerk of the Council.

Public Offices,
Pentre, Glam.,
8th April, 1905.

PORTSMOUTH CORPORATION TRAMWAYS.

ANNUAL CONTRACTS.

THE Portsmouth Corporation invite TENDERS for the SUPPLY during the next 12 months of—

Section A.—Ballast, Sand, and Grit.
,, B.—Portland Cement.
,, C.—Brooms and Brushes.
,, D.—Oils (not Lubricating), Chemicals, &c.
,, E.—Smiths' Coal and Coke.
,, F.—Timber, &c.
,, G.—Fodder.
,, H.—Brake Shoes.
,, I.—Engine Packings, &c.
,, J.—Engine-room Stores and General Ironmongery.

Form of Tender and further particulars can be obtained upon application to the Engineer, Mr. V. G. Lironi, M.I.M.E., A.M.I.E.E., Tramways Engineer's Office, Fratton, Portsmouth.

Tenders, properly endorsed and directed to the Chairman of the Tramways Committee, must be delivered at my Office before 12 noon, on Monday, 1st May, 1905.

Tenders arriving after that time will not be considered.

W. R. SPAVEN,
General Manager.

Town Hall,
Portsmouth,
6th April, 1905.

Official Advertisements.

BOROUGH OF SOUTHEND-ON-SEA.

APPOINTMENT OF BOROUGH ELECTRICAL ENGINEER AND GENERAL MANAGER OF TRAMWAYS.

THE Corporation invite applications from duly qualified Electrical and Mechanical Engineers for the APPOINTMENT of BOROUGH ELECTRICAL ENGINEER and GENERAL MANAGER of the TRAMWAYS.

The Electric Lighting and Tramways Undertakings are under the control of the Corporation, and are worked jointly. The Electric Generating Station serves both purposes.

The commencing salary will be £400, rising by annual increments of £25 to £500 per annum (there is a probability of the tramways service being extended, in which case the salary may rise beyond the limit of £500).

The gentleman appointed will have to devote the whole of his time to the duties of the office, and will not be allowed private practice. It is essential that applicants should have had experience, not only as Electrical Engineer, but also in the management of tramways.

The Corporation provide offices and staff.

Applications must be made on forms obtainable from the undersigned, and the same endorsed, "Electrical Engineer," and accompanied by copies of three recent testimonials (which will not be returned), must be delivered at my office before 10 o'clock a.m., on Monday, the 8th May.

Canvassing members of the Council, directly or indirectly, will disqualify.

By order.
WILLIAM H. SNOW,
Town Clerk.

Southend-on-Sea,
19th April, 1905.

BANDSTAND FOR SALE.

THE Corporation of Wolverhampton have for DISPOSAL, a substantial and ornamental BANDSTAND (nearly new). For particulars, apply to George Green, Borough Engineer, Town Hall, Wolverhampton.

PERFECT HANDWRITING is a rare accomplishment. Our new scientific method ensures perfect penmanship; tuition by post at moderate fees; remarkable results.—Send stamp for explanatory booklet No. 62, Alston's Commercial College, 9, Grimshaw Street, Burnley.

In replying to Official Advertisements please mention the "Municipal Journal.

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's

Absolutely PURE Cocoa therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

IDRIS ROYAL MINERAL WATERS

The Purest and Best.

IDRIS & CO., Ltd., Camden Town, LONDON, N.W.; And at LIVERPOOL, SOUTHAMPTON, and CANTERBURY.

BRITANNIC* ASSURANCE COMPANY, LTD.

(* formerly called "British Workman's & General.")

Established 1866.

Chief Offices--BROAD STREET CORNER, BIRMINGHAM.

Extracts from the Directors' Report for the year ending December 31st, 1904.

Ladies and Gentlemen,

Your Directors have again the pleasure of congratulating you on a satisfactory and encouraging year's work.

The BALANCE of Receipts over Expenditure exhibits the HANDSOME SURPLUS of **£208,464** on the year's accounts.

The PREMIUM INCOME shows an INCREASE of **£50,000,** whilst the INCOME FROM ALL SOURCES shows a net INCREASE of **£57,000.**

The CLAIMS PAID during the year amount to **£411,159,** and include the sum of **£87,901** paid under Maturing Endowment and Endowment Assurance Policies.

At a Special Meeting of the Shareholders held in December last, it was unanimously decided to adopt the name "Britannic" in place of the old name. The Directors have received gratifying evidence of the popularity of the selection from the Policy Holders, the Staff, and the Public at large.

The TOTAL NUMBER of NEW POLICIES issued was **502,827,** at a Yearly Premium of **£342,487.**

The TOTAL AMOUNT paid by the Company to its Assurants up to 31st December, 1904, was **£4,339,660.**

S. J. PORT, Secretary. FREDK. T. JEFFERSON, Chairman.

BIRKBECK BANK

ESTABLISHED 1851.

2½ per cent. INTEREST

allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST

allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.

STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C.

TEMPERANCE PERMANENT

BUILDING SOCIETY,

4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS

For each £100 advanced, including Principal, Premium. and Interest:—

10 years.	12 years.	14 years.	15 years
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager.

PEARL ASSURANCE CO.,

LIMITED

Chief Offices—London Bridge, City, E.C.

Annual Income	£1,382,000
Funds Increased during year 1904 by ...	£352,000
Claims Paid	£4,263,000

Additional representatives wanted.

P. J. FOLEY, Managing Director.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

The

Municipal Journal.

No. 638.—Vol. XIV. APRIL 21, 1905

NEW COUNTY HALL FOR LONDON.

This Week the London County Council has Decided to Build a New County Hall on a Site Near Westminster Bridge. Some Forceful Facts as to the Disadvantages under which the Growing Work of this Body is Conducted. Suggested Design for the New Hall, the Total Estimated Cost of which is £1,700,000.

On Tuesday the London County Council decided at last to build itself a house worthy of the great name of London. The site is by the side of Westminster Bridge, on the south side of the river. Requests for additional office accommodation for the great staff are continually being made, and the difficulties in meeting the demand have, for a long time, daily been increasing. In continuing to rent outside premises, which could only be obtained with increasing difficulty, and on high terms, owing to the demand for offices by the Government and large commercial companies, the work of the Council has been done under serious disadvantages.

The unnecessary expenditure of time, energy, and temper entailed by these separated offices represents a considerable sum in pounds, shillings, and pence. Only about 400 out of some 1,700 officials are housed in the main building, and the many rentals that are paid amount in the aggregate to over £42,000 a year. The clerk's department is housed in four separate buildings, the comptroller's department in three, the engineer's department in three, the superintending architect's department in seven, while parts of three more buildings are used to house the education architect and his staff; the education, the solicitor's, the estates and valuation, the public health, the local government and statistical, and the housing departments each in two buildings, and the chemical, public control, parks, and asylums departments each in one building. In separate houses seven of the departments are located at various distances away from the main building, the educational offices, Victoria Embankment, being as far as 1,530 yards away; 42 and 43, Cranbourn Street, 680 yards; 19, Charing Cross Road, 580 yards; 59, Strand, 550 yards; 11, Regent Street, 520 yards; 116, St. Martin's Lane, 450 yards; 6, Waterloo Place, 8, St. Martin's Place, and 40, Craven Street, each 420 yards from Spring Gardens.

The photograph we reproduce is from a design prepared by the Council's superintending architect, Mr. W. E. Riley, showing how the Westminster Bridge site might be dealt with. It is merely a suggestion, and must not be regarded as the recommendation of the committee. But it demonstrates very effectively the possibilities of the property. If the design were adopted, the lower Embankment would be made accessible to the public, thus continuing the treatment in front of St. Thomas's Hospital, and adding architectural dignity to the river frontage.

THE SUGGESTED NEW COUNTY HALL FOR LONDON.

In the middle portion of the river facade Mr. Riley thinks might be placed the Council chamber and committee-rooms, which could be grouped around a central feature, and in this position would be subject to a minimum of noise. To improve vehicular approach, and also the lighting of the lower floors on the east frontage, the width of Belvedere Road would be widened. The leading frontages would be 800ft. to the river, to the bridge approach 240ft., and to Belvedere Road 760ft.

An estimate of £600,000 is put forward by the Establishment Committee of the London County Council for the acquisition of the property to form the site for the new hall. The approximate cost of the buildings and other works is stated to be £1,100,000, making the total estimated cost £1,700,000.

STERILISED MILK IN PARIS.

Some Useful Lessons from the Sterilised Milk Depots of Paris. The Difficult Question of Distribution. Two Methods of Distribution By Which Every Child Who Receives the Milk is Under Medical Supervision. Facts as to Sterilisation. Striking Figures from the Obstetric Department of La Charite Hospital.

[By Mr. R. CATON, Chairman of the Liverpool Special Sub-Committee on Sterilised Milk Depôts].

I HAVE recently paid a visit to some of the principal institutions in Paris in which sterilised milk is prepared and distributed for the benefit of the children of the poor, hoping by this visit to learn some useful lessons and to acquire knowledge which might be of service in Liverpool.

I may first mention a few miscellaneous points of interest:—(1) The method is much more widely diffused in France than in England, being in active operation in no less than 65 French towns (as well as in 36 in other parts of Europe); (2) in no place, so far as I have learned, is the system a success commercially. In many places the milk is given gratuitously, in others it is sold at half-price. Though a considerable cause of expenditure, the results in saving life are so important that, so far as I could learn, in no place is there any intention of abandoning the method on the score of cost. (3) In all cases which came under my notice, the sterilised milk is distributed at hospitals or dispensaries, and every child receiving it is seen and examined from time to time by the medical officers of the institution.

Two Methods of Distribution.

In Paris, I observed that two different types of distribution exist:—(a) The so-called "Gouttes de Lait," or "Drop of Milk," carried on by Dr. Variot at the Belleville Dispensary. The dispensary is situated in the midst of the poorest population of Paris. I must say that the splendid self-sacrifice and philanthropy of Dr. Variot and his colleagues, in initiating and carrying on this work, excited no small amount of admiration in my mind. Dr. Variot's methods differ in some respects from ours. The milk is derived from a farm bearing the name of "Neuchatel," in the province of Normandy. A sterilizing apparatus is kept at the farm. The milk is raised to a very high temperature under pressure, viz., to 108 centigrade, or 226 Fahrenheit. The milk is, of course, made to boil, and the steam generated would blow out the corks, were they not subjected to strong pressure externally. A considerable number of bottles burst, though the bottles, each of which holds half a litre, are very strong. They are tightly corked, and the neck is dipped in melted paraffin. Dr. Variot's reason for sterilizing at so high a temperature is his belief that the high temperature renders the protection more complete; the milk keeps perfectly good for a week or more. The reason why he wishes the milk to keep so long is the following:—Like ourselves, he finds the problem of distribution a difficulty. The poor people often find the greatest difficulty in sending for the milk every day; the distances are often great. Dr. Variot does not like to trust the conveyance of the milk to the ordinary milk dealer, alike on the ground of cost and from the possibility of the milk being tampered with. The milk is distributed to each infant only twice a week—sometimes at even longer intervals. The parents can always manage to send as often as that, though they might fail to manage it every day.

Discussion of Merits and Demerits.

The objection to this system is the fact that the cork has to be taken out of the half-litre bottle several times daily by parents. A measure is supplied which gives the child just the amount of milk it ought to have. Dr. Variot is of opinion that this system answers, on the whole, very well. Another difference between his methods and ours is this—only one strength of milk is made at the time of sterilization. The parents have to dilute the milk to the required degree. This also, Dr. Variot told me, did not in general lead to any serious mistakes. There is, obviously, a balance of advantages in the two methods. By ours, greater precision is attained as to dose and as to composition; by his, greater facility in distribution. The mothers pay half-price, and the cost of any bottles they break. In one respect, Dr. Variot's system is superior to ours, viz., in the fact that sterilization is effected almost as soon as the milk is obtained from the cow. That, I must say, seems to me a great advantage. It is attended with the disadvantage that thousands of bottles have to be transported constantly between Normandy and Paris. The cost and the labour are greater than that of transporting the milk in bulk. If it were possible for us to obtain the milk from a farm close to Liverpool, and to have our sterilizing done at the farm, we might secure the same advantage that is enjoyed at the "Gouttes de Lait." At present, an interval of three or four hours elapses between milking and sterilization.

Dr. Variot's system has been in operation for ten years; he is thoroughly satisfied with it. In all that period he has never seen a case of infantile scurvy which could be attributed to the milk. He states that in about four per cent. of the children the sterilized milk does not agree, and has to be abandoned; that in a few its use is followed by anæmia; that in others it causes constipation. Diarrhœa is a great cause of death among children in Paris in summer, and at that season the slightly constipating effect of the milk is, in his opinion, an advantage.

A Second Method of Distribution.

(b) The other form of distribution of sterilized milk is that carried on in connection with the obstetric and infants' departments of the Parisian hospitals. I visited the department in the great Charite Hospital, and had a conversation with the physician in charge (Dr. Maygrier). Here, as of course at the "Gouttes de Lait," the milk is only given in those cases in which the mother cannot suckle the infant, or when the maternal milk does not agree.

In this and other hospitals in Paris, the large cans of milk are purchased from the ordinary dealer, and the sterilization takes place at the depot, at 208 Fahr., in the hospital from which the milk is distributed —as with us. In the Charite Hospital, the sterilizers and other apparatus are of an inferior type, as compared with ours, probably because they are older (Sohxlet's sterilizer is used). The same system of separation into small doses, one for each feed, in small separate bottles, as in our depots, is employed. The work seems to be well done, but at the cost of a greater amount of labour than with our improved apparatus.

The number of bottles varies in some degree with the age of the child, as does the amount of milk in each. The bottles are given out in small wicker baskets; a fresh basket every day. They are given gratuitously.

Interesting Deductions.

Of the infants born in the Obstetric Department of La Charite Hospital, it appears that about five per cent. received no nourishment from the mother; about twenty per cent. received partial nourishment. In all these, employment of the sterilized milk was of the greatest service, and has saved great numbers of lives. The milk is always given direct to the infant's friends, never through the aid of the ordinary milkman. Among 800 infants attended consecutively, only 2¼ per cent. are known to have succumbed. So, at least, I understand Dr. Maygrier's figures.

The one respect in which both these methods of distributing sterilized milk is superior to ours is in the fact that every child is under medical supervision. It may often happen that some other ailment, in addition to dyspepsia, is present, and in that case the giving of sterilized milk may not meet the case fully. I see great difficulties in our providing medical attendance at our depots, but the question arises whether in bad cases it would not be well, as a routine principle, to advise the mother to seek medical advice for the child.

I wish to express my sense of the great courtesy and kindness shown to me by Dr. Variot, Dr. Maygrier, and others during my visit to Paris hospitals and dispensaries.

A NOVEL SCHEME.

The Newport Transporter Bridge.

NEWPORT'S Transporter Bridge, which has already been described in our columns, will probably be opened for traffic before the year is out. There has been a good deal of speculation as to whether the Corporation was justified in spending £90,000—the estimated cost of the bridge—in obtaining communication from the industrial side to what is termed "the barren side" of the river.

On the other hand, it was generally felt that the authorities were obliged to do something to cope with the congested state of the present bridge, and that whatever method was agreed on it must not prevent high-masted vessels sailing up and down the river.

After various schemes had been considered, the Transporter was agreed to. Financially, it will be a burden on the rates, yet there is the necessity for cross-river communication, and schemes for the general good of the public have to be financed from the common fund. On the other hand, it is generally admitted that the means it will afford to convey pedestrians, horses, carts, and merchandise from one side of the river to the other will certainly be an impetus to develop the large tracts of land on the east side.

The bridge consists of two towers of open lattice girder work 254 feet high, with the girder framework of a suspension bridge over the river high above the wharf level. Passing over the top of the towers and moored to anchorages of solid masonry on each side are stout steel wire cables supporting the centre of the bridge. On each side of the towers there are footways, reached by a series of ladders and platforms, and from these pedestrians will be able to look down upon the town.

The distinctive feature of the bridge, however, is that without climbing or exertion, simply walking or driving on to a car, the pedestrian or the loaded cart can be conveyed from one side of the river to the other at the level of the road. The car is suspended by thirty steel wire cables from a platform which runs on low rollers along the girders of the bridge about 160 feet above, and by means of a winding rope and drums, worked by electric motors the car will be carried from side to side.

The width of the river between Brithdir Wharf and Crow Point, where the bridge is erected, is 650 feet, and the journey across will be made in one minute. The contractors are Messrs. Alfred Thorne and Sons, Westminster. Mr. R. H. Haynes, Newport's borough engineer (with M. Arnodin, the patentee of the system), are joint engineers in the work.

THE wholesale market, which has been the topic of much discussion, was opened last week on the Widnes Market-ground. The committee, in view of the opening of the new Transporter Bridge, is trying to make Widnes a wholesale market town. Not a very large number of dealers put in an appearance, but, nevertheless, the committee is sanguine of success. Up to the present Widnes people have had to buy at Liverpool, and, in a lesser degree, at Manchester.

MORE BATHS FOR LEEDS.

The Leeds Corporation is Gradually Building up a Splendid System of Central and District Baths. A New Institution Just Opened Makes the Eighth Bath, and Seven of them are Situated in Districts Away from the City's Centre. The Latest Scheme Described and Illustrated.

LEEDS, as we have previously recorded in our columns, is adopting a progressive policy in regard to the provision of public baths. The York Road establishment, opened at the beginning of this month, makes the eighth set of public baths in the city—one central and seven district. There are also four swimming-baths for school children, under the Education Department, and one free open-air swimming-bath in the New Wortley Recreation Ground, under the parks committee, so that ample provision has been made.

The new building has been erected for the joint purposes of a branch library (already opened) and public baths. The accommodation provided in that part of the building to be used for bath purposes consists of slipper baths, Russian bath, large swimming-bath, laundry, boiler-house, cistern rooms and house for engineer-in-charge.

The slipper baths are twenty in number—sixteen for males and four for females, divided into four first-class and twelve second-class for males, and one first-class and three second-class for females. The baths themselves are of white earthenware, glazed both inside and outside, each bath being fitted with brush and soap tray of similar glazed ware. The first-class baths throughout are fitted with hot and cold shower bath, with valve arrangements of special construction, so designed that any risk of scalding is absolutely avoided.

The Russian bath is of special design and construction, and consists of a suite of three rooms, viz., hot room, shower room, and cooling room. The hot room has fittings for obtaining any steam heat required. The shower room is divided into four compartments by marble slab divisions, each compartment being fitted with a foot-bath and hot and cold shower, these, as in the case of the slipper baths, being constructed to avoid scalding. The cooling-room is set out with dressing-boxes and lounge chairs.

The swimming-bath is 93ft. by 46ft., with a water area of 75ft. by 30ft.; the maximum depth is 6ft., the minimum 3ft. The margins round the bath are of good width, and the dressing-boxes, which are placed on two sides of the bath, are of ample dimensions. At the deep end of the bath a specially-constructed spring diving-board is provided, and the high dives are taken from the gallery floor level. A spacious spectators' gallery is provided on three sides of the bath, with the fittings so arranged as to provide additional dressing accommodation during the busy season. A separate approach, other than the one used by bathers, is provided for the gallery, so that the public can attend entertainments without in any way interfering with bathers. A feature of the bath is the provision of a large room placed at the end to be used as a dressing-room for school-children. This room has its own separate entrance and exit, thereby avoiding any inconvenience to ordinary bathers; it is also fitted with special foot and shower bath, with hot and cold water for cleansing purposes, to be used before entering the swimming-bath, under the supervision of the person in charge of the children.

The laundry is fitted with the most modern machinery and fittings, and a small engine. The boiler house contains a boiler of the Lancashire type, 20ft. long and 7ft. diameter, capable of providing steam for heating all water required for slipper baths, heating the water in the swimming-bath, generating steam for laundry engine and machinery, and for the heating of the entire building. The cistern rooms contain two cisterns for hot and cold water, each representing a storage capacity of 3,000 gallons. The house for the engineer-in-charge contains living room, scullery, and parlour on first floor, and three bedrooms on the second floor.

The question of economical working has been carefully considered, the sections of the scheme having been so grouped that the establishment may be efficiently worked with a minimum staff of attendants. The front of the building is faced with Accrington bricks, with Morley stone dressings. The floor of the main entrance is paved with marble mosaic, and the bath-rooms and subsidiary corridors with interlocking tiles. Special attention has been given to the ventilation of the swimming-bath, fresh air being admitted well above the heads of bathers, the extraction of foul air being performed by an electric fan. The heating is carried out by steam distributed through patent radiators placed in positions best suited for an equable distribution of heat. The lighting of all bathing-rooms is by windows suitably placed, aided by powerful lantern lights. The artificial lighting is by gas with incandescent burners; in the case of the swimming-bath, four of these burners of 700 candle-power are used.

THE EXTERIOR.

The sanitary fittings are of a high-class and of a specially serviceable character. The various pipes and fittings throughout are of the very best material, and put together in such a manner that any portion may be quickly disconnected and re-fixed, the whole of them being arranged in specially constructed subways. In many instances, the fittings have been specially designed for the building.

The total cost of building, machinery, fittings, and general equipment of the library and the baths will be about £20,000. Mr. H. Ascough Chapman, A.R.I.B.A., of Prudential Buildings, Leeds, is the architect, his plan and design having been awarded the first premium in a competition limited to architects practising in Leeds, and of which Mr. Leonard Stokes, F.R.I.B.A., of London, acted as assessor.

The engineering portion of the work has been carried out under the personal supervision of Mr. C. T. Bond, the baths superintendent.

OFFICIAL & PERSONAL.

LEEDS CITY ENGINEERSHIP.

The nature and extent of the duties of the new Leeds city engineer occupied the attention of the Sub-Improvement Committee last week. The committee sat for a considerable time, but adjourned without coming to any definite recommendation, pending a conference with the chairmen of the Spending Committees of the Corporation.

The retiring city engineer (Mr. Thomas Hewson) had, in addition to the ordinary work of his department, control of the water and sewerage work. Since Mr. Hewson's retirement a waterworks engineer has been appointed, and it is proposed to have a second engineer to advise and carry out a sewerage scheme. These new appointments will necessarily involve a good deal of re-arrangement.

The present feeling of those in authority is in favour of conferring greater administrative powers upon the future city engineer in regard to the work which comes under the cognisance of various committees of the corporation.

THE CHIEF CONSTABLESHIP OF BURNLEY.

The 57 applications sent in for the vacant chief constableship of Burnley (salary £350, rising to £400 a year) were considered last week by the Watch Committee. The following ten were selected to appear before the committee on Wednesday:—

Mr. Arthur Melbourne Berry, chief constable of Kendal.

Mr. John R. Casburn, chief constable of Grantham.

Mr. James H. Galloway, chief inspector and deputy chief constable of Cambridge.

Mr. Albert Hargreaves, inspector in charge of police out station, Middlesbrough.

Mr. Richard Jones, superintendent of police, Aberystwyth.

Mr. Harry Kenyon, police inspector and inspector of weights and measures, Burnley.

Mr. Frank Richardson, chief constable of Salisbury.

Captain Francis Stuart K. Shaw, Workington, adjutant, 3rd V.B. Border Regiment.

Mr. William Henry Smith, chief constable of St. Albans.

Mr. John Henderson Watson, chief constable, Congleton.

GLASGOW TOWN CLERKSHIP.

The Position to be Again Advertised.

The first meeting of the recently constituted committee on the Glasgow town clerkship was held on Friday in the City Chambers.

There was a full attendance of the committee, which consists of 25 members, representing all the wards of the city. The meeting lasted over an hour, and it is understood that numerous motions were submitted and discussed.

Finally, it was agreed that the position of town clerk for the city should be advertised as vacant, the advertisement being in similar terms to the former one.

It was agreed, however, that the minimum salary should be £2,000 per annum instead of £1,500, which was the original minimum.

BIRMINGHAM SENSATION.

Sudden Death of the Lord Mayor.

Councillor Rowland Berkeley, Lord Mayor of Birmingham, died suddenly last week from apoplexy.

His lordship during the day attended the induction ceremony of the new Rector of Birmingham, and was then in good health.

In the evening he was present at a committee meeting to consider the opening of the new Hollymoor Asylum for Birmingham, and it was whilst discussing this matter with Dr. Whitcombe that he suddenly became unconscious, and expired within a few minutes.

TWENTY-FIVE YEARS TOWN CLERK.

Mr. Keighley Walton last week completed 25 years' service as town clerk of Halifax. Mention was made of the fact at the meeting of the Corporation Tramways Committee, and a congratulatory resolution was passed.

HARROGATE BATHS MANAGERSHIP.

The Wells and Baths Committee of the Harrogate Corporation on Tuesday further reduced the number of applicants for the post of general manager of wells and baths to six. There were originally 296 applicants.

The following are to appear before the committee next week:—William Butterworth, ex-police inspector, Harrogate; George Carline, baths manager, Harrogate; Francis V. Clements, baths manager, Nottingham; John L. Hopwood, Borough Accountant's office, Harrogate; Herbert Tommes, superintendent of baths, Kidderminster; Thomas W. Tuley, baths proprietor, Huddersfield.

LEEDS TRAMWAYS.

A Year's Profit of £56,000.

An analysis of the receipts of the Leeds tramways system for the year ended March 25 shows a total of £295,000, an advance upon the previous year's of £17,000. Since then, the officials have been busily engaged in preparing a full balance-sheet, showing the income and the expenditure under the various heads of administration, together with the profits which accrue upon the year's work. The nett profits for the year, which have already been ascertained, will not fall far short of £56,000.

This figure has been arrived at by methods of calculations similar to those adopted in previous years, i.e., full allowance has been made for depreciation. Interest, of course, has been reckoned for the whole of borrowed capital, and the usual sinking fund charges for the redemption of the debt have been made. A sum of £6,000 more than was estimated for has been spent on renewals and the maintenance of the permanent way, in pursuance of a policy by which the whole of the system is maintained in the highest state of efficiency.

THE INTERIOR OF THE LEEDS NEW CITY BATHS. (SEE PREVIOUS PAGE.)

The Malling Board of Guardians has issued a return of the administrative expenses per head of average attendance of twenty County Councils. The amounts vary from 10d. in Essex to 5s. 4d. in Kent.

CHILDREN'S COURTS.

Birmingham and the Movement for Special Courts for Children. Inaugurating the New Scheme which Will Keep Young Life from the Contaminating Influence of Hardened Criminals. Lessons from America and Some Notable Results Achieved. Each Defendant Represented by Counsel.

THE Birmingham magistrates have recently decided that juvenile offenders coming under their jurisdiction shall, in future, be dealt with in a special court, away from the contaminating influence of hardened criminals, and the new scheme was inaugurated last week. The court opened at ten o'clock, an hour before the commencement of the ordinary police business, and the defendants were admitted to the building by a side door.

Mr. Courtenay Lord, the chairman of the visiting justices to the gaol, has been the moving spirit in the development, and he explained his ideas on the matter at the first sitting. He said that:—

> For some time, the magistrates had been very anxious to decide upon some system by which juvenile offenders, under sixteen years of age, could be tried without being exposed to the miseries and to the "disagreeables" of a criminal court, and after a considerable amount of information had been gained from other cities and other countries where the system had been adopted, they had decided to hold on Thursdays, at ten o'clock, a juvenile court, where each case would be tried separately, and where a boy or girl who was accused of some crime would have his case tried without it being heard by all the other juvenile offenders.
>
> The offences were of various natures, and a boy might be brought up for some trivial offence who knew nothing about general criminality, and would not be made to mix with the ordinary criminal classes. Under the Act of 1901, the parents and guardians would be cautioned to attend the court, and, if it should be found necessary, they would also be punished, if it could be proved that the young person's offence was due to the negligence of a parent or guardian.
>
> The Bench was most anxious that the court, as far as it could be, should be a correctional court more than a penal court. They believed that a very great deal more could be done by gentle correction than by the actual imposition of fines or other punishment. They wanted not merely to stem the stream of criminality, but to check it at the spring.

Movement Abroad.

Children's courts are coming to be recognised as necessary institutions in great centres of population, and nowhere has the idea been more successfully carried out than in America. In the current issue of the *Contemporary Review*, Mr. Ernest K. Coulter, Deputy Clerk of the New York Children's Court, explains the system very clearly.

The law establishing the first separate bar for children in New York City was passed in 1902, and the Children's Court opened its doors on 2nd September of that year. The court has jurisdiction in all cases of children under the age of 16 who are taken into custody in the boroughs of Manhattan and the Bronx, the old city of New York. These two boroughs have a population of considerably over 2,000,000, and their juvenile court handles the largest number of children's cases of any court in the world. The value of this first court was almost immediately apparent, and in less than a year another law was passed providing for a second children's court with territorial jurisdiction in the borough of Kings, the old city of Brooklyn, which in 1900 had a population of more than 1,160,000. There are two boroughs in the Greater City of New York for which separate tribunals for children's cases have not yet been provided by law, but in the boroughs of Richmond and Queens, which are less thickly populated, the general Children's Court Law of the State, enacted in 1903, applies. This law provides that all cases involving the commitment or trial of children, actually or apparently under the age of 16 years, for any violation of law, in any court, shall be heard at suitable times to be designated by the court, separate from the trial of other criminal cases.

Method of Working.

If there is a conviction the justice takes ample time to go thoroughly into the matter of environment, previous record, and family history. The agents of the Society for the Prevention of Cruelty to Children, who render invaluable aid to the court, frequently take several days to make these investigations. Pending a settlement of the case, the boy or girl always remains in the custody of the Society. For almost thirty years the laws of New York, recognising the inhumanity of the old system by which children were locked in cells, sometimes in company with depraved criminals, have forbidden any boy or girl under the age of 16 years to be detained at the police station. Immediately on arrest children are sent to the building of the Society for the Prevention of Cruelty to Children. Here they encounter nothing suggestive of the station house or gaol. Instead of narrow steel walls, barred windows, and ponderous locks, there are commodious, bright and airy dormitories and recreation rooms, and a certain measure of freedom.

The general plan of the court is to assist convicted children to work out their own reformation without commitment, by the parole system, which is of immense value. This system is a sifting process by which those who have good material in their make-up are separated from the viciously bad, and by kindly supervision and encouragement, are set straight. Of the total of 7,631 children arraigned last year, only 1,879 were committed to institutions. The number committed, too, includes 957 who were sent to charitable institutions because of improper guardianship, owing to the neglect of drunken or vicious parents. The children convicted of crime or found to be ungovernable, or disorderly, numbered 3,749. Of this number 1,098 were released on parole. These 1,098 children were required to report to the chief parole officer once a week for a stated period.

Reform Without Commitment.

The chief parole officer of the court is the Superintendent of the Society for the Prevention of Cruelty to Children, Mr. E. Fellows Jenkins, who for thirty years has been engaged in the work of bettering the condition of children in New York. Agents under the supervision of Mr. Jenkins visit the home and school or place of employment of the boy or girl at intervals during the parole period, and make careful record of the child's conduct and the home conditions. It is required that at the end of the parole period the child shall again appear in court. When his case is called, the chief parole officer submits a detailed report, and on this the court determines whether to continue the parole, suspend sentence, or commit to an institution. Of all the children placed on parole last year, it was necessary to commit only 170. In other words, more than 83 per cent. of the convicted children placed on parole made such excellent progress, morally and materially, without commitment, that the court suspended sentence. Among these were 101 boys and 5 girls convicted of grand larceny, 229 boys and 11 girls convicted of petty larceny, 107 boys convicted of burglary, 42 boys convicted of assault, 18 boys convicted of robbery, 26 ungovernable, and 68 disorderly children. There were also among the paroled children some who had been convicted of arson and forgery.

Counsel Assigned.

The charges on which children have been arraigned in the Children's Court run almost the centre gamut of the Penal Code. The only cases in which the court has no jurisdiction are those of homicide. Four boys were arraigned in the past year for homicide, but under the law it was necessary to remand them at once to the custody of the coroner. The laws of New York direct that whenever a child under the age of 16 years is charged with the perpetration of a crime, other than a capital crime, which if committed by an adult would be a felony, the child shall be tried as for a misdemeanour. So, whilst there are many arraignments for burglary, grand larceny, robbery, and other felonies, the defendants are treated as misdemeanants. The court is required by law to see that each defendant is represented by counsel. If the parents are unable to retain a lawyer, the court assigns one. Speaking of the wide range of offences, it may be of interest to note that there have been eight cases of attempted suicide on the Children's Court calendars in the past two years, and, strangely enough, in each the defendant has been a girl who has grieved over some fancied or really unjust treatment received at the hands of her parents.

ACTION AT BRADFORD.

The Bradford Education Committee has decided to support the suggestion of the Discharged Prisoners' Aid Society that the magistrates should establish a special court to deal with charges against children.

HULL'S LATEST LIBRARY.

Completion of the Carnegie Branch.

THE Hull Carnegie Branch Library, which is nearing completion, has some features that are unusually interesting, if not unique. When the City Council accepted a gift of £3,000 from Mr. Carnegie, it resolved to find a site for the building in a corner of the West Park, adjoining the main entrance on the Anlaby Road, and quite a picturesque little building, with red tiles and overhanging eaves, has been erected from designs by Mr. Hirst, the City Architect. On such a site, the conventional forms of street architecture had to be avoided, and he has succeeded in a most happy fashion in providing a structure which is entirely in harmony with its surroundings.

Briefly, it is a one-storey building set upon a mound within a rustic fence, bordered by flower-beds and shrubs, and entered by a quaint and attractive porch. The interior is divided into two large, lofty, and well-lighted apartments. One of them is the Lending Library, handsomely furnished, and fitted with Cotgreave's indicator, denoting what books are in and out; and this is separated by an ornamental glass screen from the Reading Room, which is panelled in oak, with open roof, and giving accommodation at the carved oak benches for fifty-two readers. All the flooring is of pitch-pine blocks, and the artificial lighting is furnished by electricity. This Reading Room opens out upon a spacious verandah, where the readers may take their books or magazines out into the open air.

This is the fifth public library erected in Hull, and the fourth since the adoption of the Act in 1892. Sir James Reckitt, Bart., one of the pioneers of the free library movement, met an adverse poll in 1889 by an offer to provide East Hull with a library at his own expense as an object lesson. His offer was accepted, and his lesson went home, for within four years the Act was adopted, and when he handed over the "James Reckitt Library" to the Committee he at the same time gave them £6,000 to invest for its maintenance. Three years later, Hull had a central library and two branches serving the western and northern districts; and it is only a little over three years since Lord Avebury opened a new central library in Albion Street, which cost the ratepayers £20,000.

LESSONS FROM ABROAD.

Perth, the Capital of Western Australia, Though Hampered by Government Action, Has Realised the Advantages of Municipal Enterprise, and is Carrying Out a Number of Interesting Schemes for the Good of Its People. Removal of Plague Spots and the Extension of the Drainage System. A Method of Inquiry-Making and Its Three-Fold Advantages. Satisfactory Finances.

THE capital of Western Australia is a beautifully-situated city, worthy of every effort of industry and genius devoted to its perfection in beauty, convenience, and health. Much has been achieved by an advanced municipal policy; but there are few cities which will show more gratifying results of continued municipal labour. The City Council has now before it several large schemes, which must be carried to a successful issue if the City is to take its rightful place amongst the capitals of the Commonwealth.

Municipal Requirements.

Before dealing with the progress of its separate undertakings, as shown by the latest report of the Mayor (Mr. Harry Brown, M.L.A., J.P.), and by various Departmental Reports, with which we have been officially favoured, it would be well to point out what are considered urgent municipal needs. First and foremost is the provision of a new and efficient system of water supply, and the installation of a sewerage system upon modern lines. In Australia, municipal government is less free from central government than is the case in this country. Reading between the lines of these reports, it is not difficult to see that the Government has delayed the carrying out of these two important matters, and the Council is now contemplating taking independent action, obtaining the necessary borrowing powers, and carrying out the work itself. After estimation, it is pointed out that "the sewerage system could be installed at no extra expense to the citizens than the present obsolete and objectionable service."

The storm-water drainage system requires to be extended throughout this city of 36,000 persons. The present patchwork system of constructing storm-water drains is felt to be expensive. In many cases, it seems, drains are constructed which will be utterly useless when the complete system is installed.

Reforms Suggested.

From the report of the City Engineer (Mr. H. T. Haynes, M.S.E., M.I.A.M.E.), we notice that during the year upwards of 300 premises have been connected with the drainage system, and the continually-increasing quantity of unpurified sewage thus discharged into the river cannot fail to have an injurious effect, and steps should be taken by the authority having charge of the proposed sewerage system to proceed with the construction of the purification works for the treatment of the summer flow with all possible dispatch. In winter, with the river at flood, the sewerage is so much diluted with fresh water that the need for such provision is minimised.

Other needs of little less importance to this sunny city on the banks of the River Swan, anxious to keep abreast of the times, are the provision of underground conduits for telegraph, telephone, lighting and power wires. Like many other cities, it is finding that the system of running wires overhead is dangerous, and very unsightly. The city is also greatly in need of fish and produce markets and abattoirs, where the food supplies can be regularly and carefully inspected by the officials appointed for that purpose. The questions of city lighting, the erection of a new town hall, and the installation of a refuse destructor are also in the foreground.

The defects of this present system of sewage disposal is strongly brought out in the City Engineer's report. It is mentioned that the biological system for the treatment of domestic sewage has been adopted at nine private residences, three hotels, two private clubs, and one suite of offices, as the only alternative available to the "objectionable and troublesome soak-well."

But it would seem that in some cases at least this was a jump from the frying-pan, for several of the installations were "simply brick cesspools," and, as such, became even a greater source of danger to the public health than the soak-well. All these, however, have been abolished. The fact that owners are willing to spend from £50 to £500 in their efforts to provide a satisfactory means of dealing with their domestic sewage may be taken as an earnest of their desire for a better sanitary system, and also as an indication of their impatience that the sewage system should be so long delayed.

Among the reports of more general interest is that of the Acting Health Officer (T. G. Davy, M.A., M.D.). From this, it appears that during the past three years £928,504 has been spent in providing houses and other buildings to meet the needs of a population which steadily increases. Of this, a very small percentage only has been spent in inferior and temporary structures of galvanised iron and wood. The city, therefore, exhibits no signs of being poverty-stricken or retrogressive. During the latter part of last year, a thorough inspection of buildings considered injurious to health was made, and 215 cases were dealt with, offering health propositions of various importance.

The methods of making this inquiry seem worth alluding to, for they contain a wrinkle or two for English municipalities. The details of all the cases to date were presented in the form of a register. The book exhibits the complete history of each case from the date of inspection, and is declared to be designed "for the protection of the public, a proof of impartiality, and the demonstration of a policy of hygiene easily understood and assisted by the people." The book also represents a progress report.

Milk—that most dangerous food—the contamination of which we have heard so much about lately in this country, is, it appears, insufficiently protected in Perth. Out of 145 milk samples tested during the year, thirty-nine were adulterated. Milk in Australia is not of the highest quality, and will not bear adulteration.

The work of beautifying the parks and reserves throughout the city has been continued during the last year. The urgent necessity for increasing the number of open spaces has been appreciated by the Council for some time past, and in September last it decided to purchase an area of 16½ acres, which will in future be known as "Loton Park," and will be held in trust by the Council as a recreation ground and park for the citizens of Perth.

The tramways system and gas supply are in the hands of companies.

Something should be stated as to the financial condition of the city, which appears to be satisfactory. Although there is shown a debit balance of £4,311 1s. 0d., this is caused by the payment of the full purchase price (£8,500) for Loton Park. It was originally intended to take only £4,000 of this amount; but legal difficulties presented themselves, and it was eventually decided to pay cash for the full amount.

A VETERAN LIBRARIAN

Mr. A. Cotgreave, of West Ham.

THE announcement (to which we briefly alluded last week) of the retirement of Mr. A. Cotgreave, the able chief librarian of West Ham, has occasioned keen regret, not only locally, but generally in literary circles; for Mr. Cotgreave's reputation is by no means confined to West Ham. He has had more than a quarter of a century's experience as a public librarian, and, although now in middle life, occupies a front rank in the profession.

Mr. Cotgreave is a Cheshire man, and received his early training as a librarian in the Manchester Royal Exchange Library; later on coming to the Midlands and serving in public libraries in Birmingham. In 1877 he was appointed librarian of Wednesbury Public Library; was librarian of Richmond, Surrey, from 1880 to 1884; of Wandsworth from 1884 to 1886; of the Guille-Alle's Library, Guernsey, from 1886; and of West Ham, 1891 to the present time.

Inventor and Compiler—

During his many years of public service Mr. Cotgreave has acquired some considerable reputation as an inventor of library appliances, and as a compiler of literary guide books. His well-known "Indicator" is very extensively used, while he is the author of the standard work, "Subject-Index to English Periodical Literature," and this, and his "Views and Memoranda of Public Libraries," are in use at practically every municipal library, and are books of great utility for purposes of research.

And Booklovers' Friend.

Of the numerous improvements for the benefit of library readers which were instituted by the late chief librarian of West Ham, we may mention the following:—The use of telephonic communication to enable the books at any one library to be available to readers of the others; the privilege of each borrower holding four tickets—for general literature, for music, for unbound magazines, and for fiction; the collection and publication, under subject headings, of important articles on topics of the day, contained in various current journals; the provision of cheap combined book-covers and book-marks (Cotgreave's design), at the low price of one penny, by which the books of the libraries have been greatly preserved. Moreover, owing to Mr. Cotgreave's intimacy with various authors, publishers, and authorities of important institutions, he has been able to increase the stock of the libraries under his care by gifts of thousands of volumes, some of them being of considerable value.

During the 14 years the retiring chief librarian has directed the West Ham public libraries he has been responsible for the organisation of two large central libraries at Stratford and Canning Town, the smaller of which is larger than the central libraries of most other towns; the reorganisation of the chief central library after the fire; the organisation of the two branch libraries at Plaistow and Custom House, which, the local people state, would not have now existed but for Mr. Cotgreave's strenuous and persistent efforts to obtain the gifts of them from Messrs. Passmore Edwards and Carnegie.

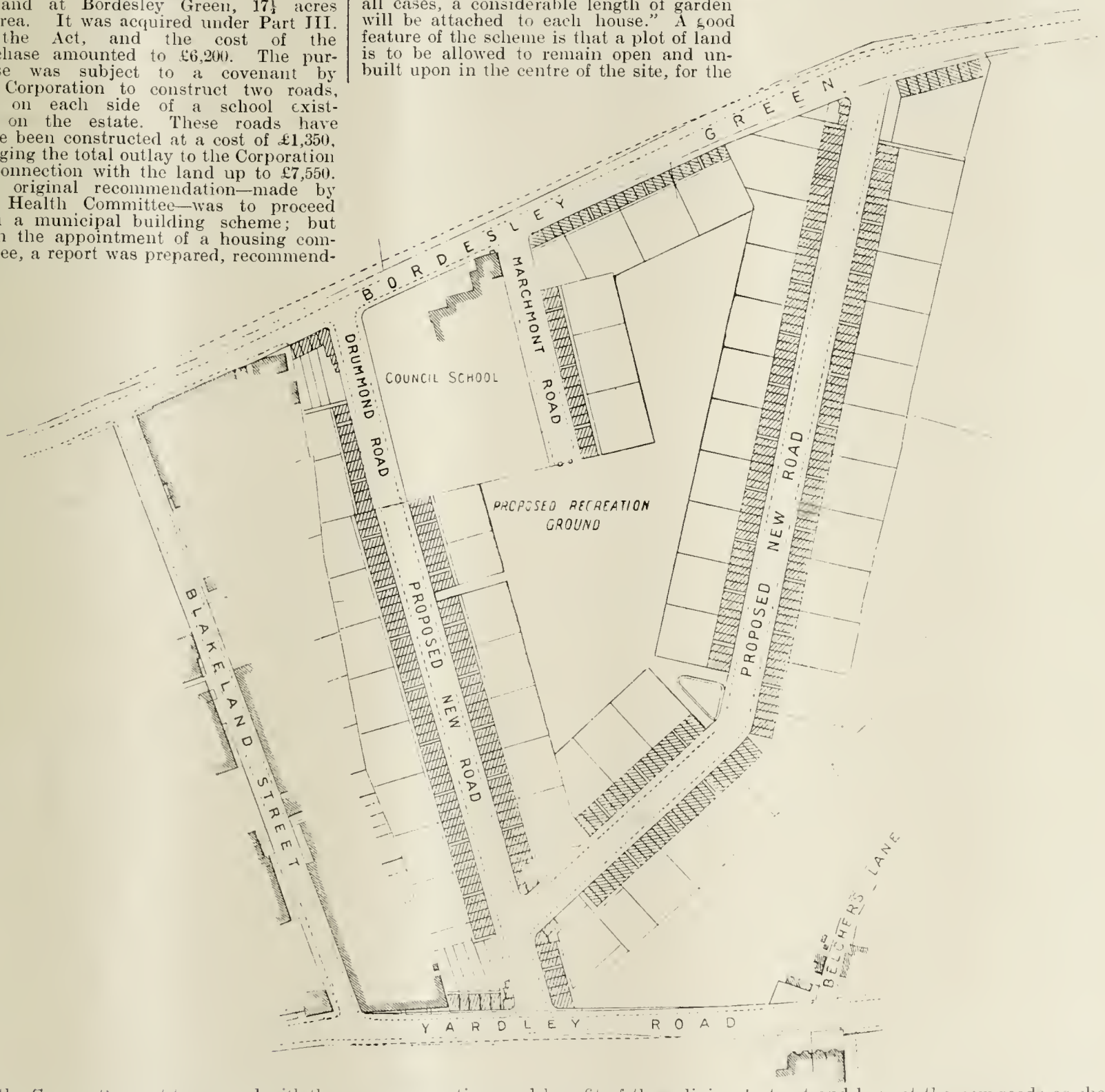
While we deeply regret to learn that the cause of Mr. Cotgreave's resignation is ill-health, we are glad to hear that he is resolved to keep himself in touch with the profession he loves, and to which he has devoted the best years of his life, by concentrating his attention on his various inventions in connection with library fittings, &c. We trust that rest may result in an improvement in health that may permit of Mr. Cotgreave's valuable services being available in some consultative capacity.

NEW HOUSING POLICY.

The Birmingham Corporation, having Decided Against purely "Municipal" Housing, is Recommended to Adopt a "Leasing" Policy, Reserving to itself the Right of Placing Certain Restrictions upon the Lessee. The "Garden City" Idea to be Carried Out by the Council. Particulars of the Scheme.

THE new policy of the Birmingham Housing Committee is that of acquiring land and then leasing it to local builders under certain restrictions. In 1899, the Council purchased a piece of land at Bordesley Green, 17¼ acres in area. It was acquired under Part III. of the Act, and the cost of the purchase amounted to £6,200. The purchase was subject to a covenant by the Corporation to construct two roads, one on each side of a school existing on the estate. These roads have since been constructed at a cost of £1,350, bringing the total outlay to the Corporation in connection with the land up to £7,550. The original recommendation—made by the Health Committee—was to proceed with a municipal building scheme; but upon the appointment of a housing committee, a report was prepared, recommending the Corporation not to proceed with the scheme itself, but to "authorise the committee to let the land to a suitable tenant or tenants, in order that it might be utilised for the purpose for which it was acquired." The power to lease land acquired under Part III. of the Housing Act of 1890 is given by Sec. 5 (1) of the amending measure of 1900.

The Housing Committee omitted to submit its project to open tender; but apparently entered into negotiations with agents, who eventually produced a gentleman willing to take the land on lease and to erect buildings thereon in accordance with the stipulations of the Corporation. The houses themselves, judging from the plans before us, are not very different from ordinary premises of this description, although the Committee tells us that an "attempt has been made to design a house which shall be distinct from the rows of stereotyped buildings which abound in the cheaper suburbs, and at the same time to give the greatest possible accommodation as regards air space and conveniences. In all cases, a considerable length of garden will be attached to each house." A good feature of the scheme is that a plot of land is to be allowed to remain open and unbuilt upon in the centre of the site, for the use, recreation, and benefit of those living in the neighbouring houses in the district generally.



The terms of the 99 years' lease are so important that we reproduce them in full:—

"The rent for the first year is to be a peppercorn; for the second year half the full rent; and for the third and following years of the term of 99 years to be at the rate of 5s. 3d. per yard frontage, for every yard frontage that can be used for building purposes.

"The actual frontage on which such ground rent is to be paid is to be clearly marked on plan, and agreed to by both parties. Half the land to be taken up at once, and the remainder within three years.

"The houses to be erected on the land are to be of the Classes 'A' and 'B,' to be let at 5s. and 4s. 6d. per week respectively.

"Mr. Taylor will covenant to erect not less than 310 and not more than 340 houses on the whole of the land; and of such number two-thirds at least are to be those of Class 'B,' to be let at 4s. 6d. per week; the remainder of the houses to be let at 5s. per week.

"The houses on the first portion of the land are to be erected within three years from the date of the agreement for lease; the building of the whole of the houses on the entire piece of land to be completed within five years from such date.

"The Corporation will covenant to construct and lay out the new roads as shown on the plan within a time to be agreed upon.

"Mr. Taylor will submit a detailed plan, showing the proposed positions of the houses, and also a detailed specification, both of which, as before stated, are to be approved by the Corporation. The plans will provide for the erection of not more than six corner shops, and no licensed premises will be allowed on the estate."

Views of the Committee.

The Committee makes the following observations upon these terms:—

"It will be seen from the before-mentioned terms that Mr. Taylor agrees to pay a rental of 5s. 3d. per yard building frontage, and on the entire estate this gives a total ground rent of about £400 per annum.

"Your Committee have obtained tenders based on the City Surveyor's specification

for the construction of the new portions of the roads, and the lowest tender is that of Mr. John White, jun., at £3,348 11s. 6d.

"In addition to this, there will be the cost of paving the footpaths with concrete slabs, bringing the total cost, with incidental expenses, to £4,000.

"The present annual amount which has to be provided by the Corporation for interest and sinking fund on £7,550, the cost of purchasing the site and making the roads round the school thereon, is £335.

"The cost of making the additional roads, as stated above, will be £4,000, bringing up the total capital expenditure on the site by the Corporation to £11,550.

"The sum required to be provided for interest and sinking fund on the cost of making these new roads would be £271, increasing the total annual charge for interest and sinking fund to £606.

"The income from the ground rents would be about £400 per annum, thus leaving, when the whole scheme is completed and until the loan for roads is paid off, a net annual charge to be provided out of the rates for interest and sinking fund of £206.

"The scheme would therefore, if adopted, be an immediate reduction in the present payments by the Corporation of £129 per annum; and, further, it is important to point out that of the total expenditure of £11,550, practically one half, or £5,350, will represent the expenditure in road making.

Avoiding the Real Issues.

"The usual period granted by the Local Government Board for the repayment of loans of this nature is twenty years. Consequently at the end of this period the loan for road-making will have been paid off, and the amount remaining to be provided for interest and sinking fund will amount to £255. The ground rents will then produce a net profit of over £145 per annum, and, of course, when the loan for the estate has been paid off, viz., in fifty-six years, the entire amount received as ground rent will be profit.

"Your Committee have gone carefully into this scheme, and have given much thought to its details; and they now submit to the Council a substantial offer for the erection of over 300 houses, for the working classes, on land already belonging to the Corporation.

"It must be remembered that the Corporation are not allowed a free hand in dealing with the land, and the severe restrictions imposed by the statutes under which the estate was purchased seriously limit any proposals for laying out the land from a monetary point of view. No doubt, it would have been easy to have arranged for a greater number of houses to be erected on the land, and consequently for a larger ground rent to have been created; but this could only have been done at the sacrifice of fresh air and sunshine, and consequently at the cost of the health of the tenants. Your Committee are, with the approval of the Council, carrying out a policy for providing fresh air and freer ventilation to the crowded courts in the centre of the city, and it would clearly stultify this policy if the Corporation were to crowd a large number of persons on an estate where they are freeholders. The recent reports of the Medical Officer of Health that refer to the work of the Housing Committee emphasise the importance of avoiding anything approaching to overcrowding in new areas."

A return reflecting great credit upon the late chairman (Mr. E. E. Lawson) and members of the Leeds Sanitary Committee was presented last week at a meeting of the new committee, over which Dr. Hawkyard presided. The document had reference to the cost of the new Fever Hospital at Seacroft, and testified to the success of the administration. It appeared from the return that the total estimated expenditure on contract and authorised work for the hospital was £210,358, while the actual cost was £208,719, or a saving of £1,639. The alterations to the old pavilions were estimated to cost £4,242, but the actual outlay was £4,094, or a saving of £148. The total saving was thus £1,787.

A NOTABLE BOOK.

POVERTY IN THE UNITED STATES.*

It is an unfortunate state of affairs that the extent of poverty in the United States is almost entirely unknown, and this despite the fact that the United States spends more money on statistical investigation than almost any other nation. It is not known whether poverty is gaining or losing ground. Publications on the subject are not wanting, but almost each one warns the searcher after truth from trusting or basing any arguments upon material previously gathered and published.

Mr. Robert Hunter, the well-known American writer and social reformer, has made a very praiseworthy attempt to fill the breach, and he has crystallised the results of many years' investigation and study in the book under review. Hidden away in an appendix at the end of the book, are Mr. Hunter's estimates of the extent of poverty. He arrives at his conclusions in two ways. We need not follow the working, but the first makes a population of 11,439,963 in poverty, and the second 9,085,478. The total population of the United States is 75,994,575.

Pauper Gauging.

Even the number of paupers, according to the author, is not known with any certainty. There is every indication, he says, that not less than 4,000,000 persons are now dependent upon the public for relief. What relation, if any, pauperism bears to the poverty of the country has not been determined, but Mr. Hunter apparently sees clearly that a community may have as many paupers as it likes to pay for. He says:—

> The amount of pauperism in any community depends so much upon the way in which the Poor Law is administered that any comparison of the pauperism in various cities, states, or countries would yield no trustworthy data concerning the extent of poverty.

After deducing a great many figures (from some of which the author estimates that not less than 14 per cent. of the people, in prosperous times [1903], and "probably" not less than 20 per cent. in bad times [1897], are in distress), the reader is again confounded by the statement that the figures represent only the distress which "manifests itself." Mr. Charles Booth and Mr. B. S. Rowntree, in England, did very much more than tabulate the distress that manifested itself. The results of their inquiries showed, it will be remembered, that the total population living in poverty in London was 30.7 per cent., and in York 27.84 per cent. Even these figures, arrived at after infinite work, have been questioned. The present writer was talking the other day to an earnest worker connected with the Christian Social Union, who has made very thorough investigation on a small scale into the poverty of a small area in East London, and he said he was persuaded from his investigations that neither the figures of Mr. Booth nor Mr. Rowntree's were to be relied upon. If that be so—which we do not admit—how much more unreliable are figures which represent only the distress which "manifests itself." Evidently this is very uncertain ground.

No Chance to Rise.

The author of this book shows throughout how thoroughly he has identified himself with the gaunt, hungry labourer, wandering about the crowded centres of industry and wealth, begging, as Mr. John Hobson puts it, in vain for permission to share in industry and wealth, asking in return, not the comforts and luxuries of civilised life, but the rough food and shelter for himself and family which would be practically secured to him in the rudest form of savage society. He realises to the full that those in poverty are fighting a losing battle, because of unnecessary burdens which we might lift from their shoulders, and that not until they go to pieces and become drunken, vagrant, criminal, diseased, and suppliant, do we consider mercy necessary. There are few things in life more out of reason in civilisation than its disregard for preventive measures, and its apparent willingness to provide almshouses, prisons, asylums, hospitals, homes, &c., for the victims of its neglect. What we all feel and what is tacitly expressed in this volume is that we must get down to first causes. If every man had a chance to live honestly and work hard we should find a short way with the lazy and thriftless. It is because we are afraid of punishing the wrong people, the victims of social conditions, that we feel we must be very tender, and sometimes let our heart lead rather than our head.

Destroying Independence.

The author sees clearly enough, as we have already hinted, the futility of giving sops. Here is an illuminating sentence:—

> After the economic independence of the family has been destroyed, so-called charity undermines the character of the poor, either by private alms or by public outdoor relief. Charity has meant to be kind; private charity in particular uses every effort to prevent pauperism, but in the great mass of cases where relief is given it results in the degradation of the family and in the loss of self-respect. It is difficult to realise how much the loss of self-respect means. With it gone, there is little or no hope for the family to be anything but paupers for the rest of their days. Having come to this state, the pauper, if indeed he be not called undeserving, is given as little relief as possible, and the givers of relief endeavour to bring to bear upon him every agent of repression for the purpose of making pauperism intolerable to him.

A couple of hundred pages further on in the book, the author points out—and this is just as true of England—that we are beginning to realise the monstrous injustice of compelling those who are unemployed, who are injured in industry, who have acquired diseases due to their occupation, or who have been made widows or orphans by industrial accidents, to become paupers in order that they may be housed, fed, and clothed.

Remedies.

The remedies for poverty put forward by such a keen student of social conditions should be closely followed. They can only be indicated within the limits of our space. They contemplate mainly such legislative action as may enforce upon the entire country certain minimum standards of working and of living conditions. They would make all tenements and factories sanitary; they would regulate the hours of work, especially for women and children; they would regulate, and thoroughly supervise dangerous trades; they would institute all necessary measures to stamp out unnecessary disease and to prevent unnecessary death; they would prohibit entirely child labour; they would institute all necessary educational and recreational institutions to replace the social and educational losses of the home and the domestic workshop; they would perfect, as far as possible, legislation and institutions to make industry pay the necessary and legitimate cost of producing and maintaining efficient labourers; they would institute measures to compensate for enforced seasons of idleness, due to sickness, old age, lack of work, or other causes beyond the control of the workman, &c., &c.

Such reforms as these we want, which will not destroy incentive, but give greater equality of opportunity.

* "Poverty." By Robert Hunter. (New York: The Macmillan Co. London: Macmillan and Co., Ltd.)

The vacancy for the position of Assistant Surveyor to the Bexhill Borough Council, which was recently advertised in our columns, has now been satisfactorily filled by the appointment of Mr. W. A. Clegg, assistant in the office of the Borough Surveyor of Kettering. Mr. Clegg was formerly in the office of the Borough Surveyor of Rochdale, and afterwards Surveying Assistant to the City Surveyor, Manchester. The selection was made from 150 applicants.

EDUCATION AND APPRENTICESHIP.

Apprenticeship the Best System of Preparation for Skilled Handicrafts. Signs of a Revival of the Old Custom. America's Three-graded System of Apprentices. The Decay of English Apprenticeship. Messrs. Vickers, Sons and Maxim, and their Apprenticeship Scheme at Barrow and Sheffield. Durham and the Engineering and Shipbuilding Institution.

(*Concluded.*)

IF we take the development of trades and industries in England, we shall find that a great part has been taken by men who, by close study, observation, and perseverance, have raised themselves above their surroundings. As a result, their influence upon the advancement of their trades has been enormous.

The Decay of English Apprenticeship.

In many cases, the substitution of complicated but accurate machines for mechanical skill has driven out the old skilled workman, and in his place there are simply one or two men with knowledge of the special machines employed. As this specialisation takes place, the time necessary for acquiring manual skill requisite in any one branch becomes shorter.

The effect is that in many trades the apprenticeship system has been almost altogether abolished. In the place of apprentices, lads are employed at first in the minor work, and are only retained so long as their services are profitable. Those who do not get on are superseded.

The Boy as Wage-Earner.

It must be remembered that boys are generally engaged in a trade for less wages than the unskilled labourers, and that any increase in wage is proportioned to the increase of the lad's profit-earning capacity. Our system of technical training is certainly undergoing improvement, but the number of students in our day technical colleges is altogether insignificant, when compared with American and German figures.

Another drawback is that the course here extends for only three years, and there is no evidence of the possession of a good, sound, general education, as a rule.

Again, after the lad has left the technical school, our large industrial firms are chary about giving him a trial, as they have little faith in the products of such schools. They say they do not want boys who, directly they get into the shops, want to teach the foreman. These features—the kind of product and the want of faith—react against each other. In other words, there is no supply and demand.

Fortunately, this state of things is of a temporary nature. It must be so in the tansition stage from lethargy to activity. The time when technical education was regarded by employers as a fad, rather than as a practical necessity, is rapidly passing away. Every year the general conviction is strengthened that more technical education, based on a sound foundation of secondary school training, is indispensable to success under modern industrial conditions. We must, however, insist upon the essentially practical side of instruction. We want what the Americans call "live men," men who value practical experience, and are in their turn valued for its possession. At the same time, they are capable of appraising the theoretical side of their work at its proper value.

The Barrow Scheme.

This is the principle which underlies the recent arrangements proposed by Messrs. Vickers, Sons and Maxim, at Sheffield and Barrow. This new departure which the Education Committee at Barrow is considering is a scheme for regulating the admission of apprentices to the engineering and ordnance department of Messrs. Vickers' works. The scheme is interesting, and the details are as follows:—

1. The scheme fixes the age for apprenticeship as between fifteen and seventeen, and the period of indenture as five years.
2. Apprentices will only be engaged on the result of an examination in reading, writing, arithmetic, algebra, and geometry. There is, however, an exception in favour of a number of apprentices, not exceeding twelve, to be annually nominated by the managing director. These candidates must produce satisfactory evidence of educational qualifications. The examinations for admission will be held half-yearly in January and July.
3. All apprentices are advised to become students at the local technical school. Admission to the competitions for

Promotion to the Drawing Offices.

will be contingent on satisfactory attendance for not less than two nights weekly throughout the session at such school.

4. Apprentices attending recognised technical classes will be allowed to commence work at seven a.m., in place of six a.m. on the morning following a class attendance. This privilege will be allowed for a maximum of three mornings weekly, and attendance at classes must be vouched for by the director.
5. Courses of study are recommended which are practically the same as those laid down in the directory of the school.
6. Apprentices attending classes regularly, earning the Parliamentary grant for the Education Committee and succeeding in passing the examinations of the Board of Education, will receive extra pay for each such success attained, at the weekly rate of 3d. for each second class and 6d. for each first class, but such pay may not be claimed for more than four subjects for any one year.
7. To encourage the attendance of apprentices having satisfactorily completed a course of study at the local school, at technical colleges giving

Higher Practical Training,

permission may be given to count time so spent towards completion of apprenticeship. An undertaking must, however, be given to serve the firm for an equivalent period at the close of apprenticeship at a minimum wage to be assessed according to a given scale. During college vacations, employment will be given to such apprentices at the rate fixed by the indenture, and the additions provided for by the present scheme.

8. As far as conditions may permit, preference will be given to lads possessing technical training in making appointments of trust in the works.

Apprentices at Sheffield.

At Sheffield Technical School, a trial is being given to the apprentices of the same firm. These form three grades:—(1) Those with a public school or college education, who either enter the works direct from school and spend six winter months at the Institute or other institution, and the six summer months in the shops for three years; or those who have passed a full three years' course at a university or technical school. These latter spend one year in the shops, followed by two years in the drawing office or elsewhere in the works.

These pupils receive the usual rates for apprentices while in the shops. The second grade (ii.) is intended for youths with a high or grammar school education. They are to go through a two years' course at the Sheffield Technical College (or other equivalent institution) either by apprenticeship at seventeen or eighteen, or by a grant of two years' leave of absence during term time later on in their apprenticeship. In such cases, the apprentices will enter, or re-enter, at the rate of pay they would have had if the two years had been spent in the shops. The third grade (iii.) is concerned with youths with a public elementary school education. They must attend evening, science, and technical classes, and pass the examinations, and receive (for one year following the examination) 1s. a week extra for each pass in not exceeding three approved subjects. This allowance will, however, be subject to good conduct and reasonable proficiency in practical work.

This plan gives a trial to Mr. Yarrow's scheme of "sandwiching" six summer months in the works with the six winter months at school. This half-year system is being tried also at King's College, London, and the University of Birmingham.

Durham and the Shipbuilders' Institution.

Recently, the Durham Education Authority was approached by the North-East Coast Institution of Engineers and Shipbuilders, who were prepared to render any assistance in their power, with the object of providing a suitable education for those intended for the engineering and shipbuilding profession. The Education Committee is at the present time considering the possibility of co-operating with the suggestions made to it.

The question of technical training has cropped up in many quarters of late. At a meeting at the Regent Street Polytechnic, last month, the President of the Association of Teachers of Technical Institutions stated that his ideal scheme for technical training would be as follows:—

Primary education, 6 to 13 years of age. Secondary and technical education, 13 to 16 years of age.

Combined apprenticeship and evening instruction, 16 to 21 years of age.

Higher education, onwards.

He strongly advocated the founding of a technical university for London, at which degrees or diplomas should be granted under such liberal conditions that none should be shut out from competition.

All these signs and portents point to the fact that the day has gone by when a haphazard life at school and apprenticeship alone will suffice.

In Germany, the system of technical schools has long since developed from the mere trade or building schools. Most of them were founded in the twenties and thirties of the last century, and the "Charlottenburg" was established as long ago as 1797.

Trade Schools in Germany.

In Berlin there are twenty-two schools alone, each of which is devoted to the teaching of its own trade, and the number of pupils in attendance reaches over 6,000.

The Germans have a great number of trade schools, like the textile school at Crefeld. These schools are located at the centre of the industry to be benefited, and are distinctly utilitarian in character. Besides these, there are the continuation schools and manual training centres. So numerous are these specialist schools, that a German can always find one in which he can learn the latest and best methods devised and the principles of any trade or profession he may desire to follow. Added to these are the latest innovations: the commercial high schools and colleges of commerce.

The Germans have discovered that the secret of success in trade and industry depends upon education, not upon the education of the laboratory and cloister, but

upon the education of the laboratory, the shop, and the modern lecture-room.

The Guilds and Apprentices.

The advantages of the system of binding an apprentice to a master for the purpose of serving him for a fixed term, and being taught the craft of his trade, are obvious. It is a system which has always received the support of the great guilds, many of which make grants of money for the payment of premiums.

Many of the educational endowments which are connected with public elementary schools, and which, under the new order of things, are undergoing investigation all over the country, were originally founded for the express purpose of apprenticing and paying the fees of poor children. This is an object which may very well be carried out in its proper measure.

Of course, many of the conditions formerly attaching to apprenticeship have ceased to be practicable, but the necessary modifications could easily be made to bring them into line with modern requirements.

Unfortunately, the benefits of apprenticeship are beyond the reach of the great majority of the working-classes, for want of means of paying the premiums, and parents of that class have not generally the judgment, experience, and time necessary to make a wise selection of trade and master, and to negotiate fair terms with him.

Apprenticeship Redivivus.

The great majority of children, on leaving school, are obliged to at once take employment where they can receive wages, and in the selection of employers little or no consideration is given to future prospects or suitability of occupation. Too frequently a haphazard choice is made. In this way, large numbers of children drift into casual labour. Frequent change of master and trade is also the rule, and very few become skilled in any trade, and so go to swell the ranks of the unskilled labourers.

The movement for revival of the apprenticeship system in the metropolis has found expression in the formation of an apprentices' institute, whose object is to apprentice children of the working-classes to good trades, and thus provide for their efficient training, while receiving regular employment and wages. The object of the institute is also to reduce the evils attaching to present-day labour, and to raise the standard of work of the coming race of mechanics. Among the promoters are well-known men like Rev. Canon Barnett, W. C. Steadman, L.C.C., H. R. Taylor, L.C.C., Sir Henry Trueman Wood, and the Earl of Fortescue. We are glad to see that many of the local education authorities are extending the system of technical (agricultural) training in the direction of classes for horse-shoeing, farriery, bee-keeping, butter-making, and the like.

One question which is being raised—and a very important one to the authorities—is whether there is any legal power to pay for education of apprentices. We have looked into the Education Acts, and are of opinion that there is.

Power of Education Authorities.

According to Sec 22 (3) of the Act of 1902, the power which is given to authorities to supply or aid the supply of education other than elementary, includes power to supply *any* education except where the education is given in a public elementary school. We think, therefore, that under this section councils can, if they think fit, after consulting the Board of Education, take steps to carry out such objects.

The problem of technical education is not a side issue, but an integral part of the problem of education in general.

As one of the Moseley Commissioners rightly says:—"The establishment of a close connection between institutions for technical education on the one hand, and industrial and commercial organisation on the other, is an essential factor in a successful solution of the problem of technical education, as of that of industrial and commercial progress."

EDUCATIONAL NOTES.

Bradford.

THE dispute between the Education Committee and the Roman Catholics in respect of the latter's proposal to establish a new training college for pupil-teachers has been settled. Practically, the Education Committee has the control of the new institution, and has to maintain it for the usual scholastic purposes.

Derbyshire.

THE last report of the Education Committee indicated that Professor Sadler's investigations into secondary and higher education in the county would be ready shortly, the main provisions of the report having been already considered by the committee. It is proposed to assist the new Sheffield University by an increased sum of £750 annually. The estimates for higher education require £21,981, and for elementary, £76,800. The education rate for the half-year is to be 8d. in the pound, as compared with 6d. last year. The mining classes at Sheffield and Derby are to be continued.

Dundee.

A very useful addition to the economic question, which is very much in evidence at the present moment, has been made by the issue of a report on the physical condition of children in Dundee. The responsibility for the work belongs to the Dundee Social Union, and the report contains valuable information respecting the medical inspection of school children.

Ealing.

THE education rate is 7d. in the pound for the ensuing year. Owing to an outbreak of measles, and the consequent closing of three departments, the committee is considering the advisability of appointing a medical officer. Empire Day is to be observed in the schools of the borough.

Gloucestershire.

NEW education offices are to be built adjoining the Shire Hall at a cost of £6,000.

Gosport.

THE Education Committee decided to adopt for use in the schools the prayer and hymn-book published by the Hampshire County Council.

Isle of Wight.

THE Board of Education has written to certain voluntary school managers in the Isle of Wight who have been warned by the County Education Committee against the removal of children from school during school hours to a service at the parish church, stating. "If parents do not exercise the right of withdrawal, but send their children to school at the commencement of the meeting, and the attendance of such children is duly registered, it appears to the Board to constitute a serious breach of school discipline for a manager to enter a school and remove certain of these children therefrom for the purpose of taking them away, whether to church or elsewhere." The Board has also given notice of a public inquiry at Freshwater to ascertain whether the Norton Church Infants' School, which the County Education Committee has declined to recognise, is necessary for the district or not.

London.

THE post of headmaster of the City of London School will become vacant at the end of July. The salary attaching to the position is £1,000 a year. The Education Committee has at last completed its survey of the voluntary schools, and on Tuesday presented to the Council the result of its deliberations in the shape of a lengthy report and recommendations of over 230 pages. In addition, the details contained in the five appendices run to about 1,200 pages. Over ninety schools are condemned by the Committee on structural grounds.

Lincoln.

THE Education Committee has completed its scheme for the co-ordination of instruction of candidates and pupil-teachers. The Committee is still uncertain what to do as regards the suggestion of Whitehall to increase the fees of day scholars at the Municipal Technical School.

Morecambe.

THE education rate for the ensuing year is 1s. 1d. in the pound—an increase of 1d.

Newark.

THE Board of Education has permitted the Education Committee to admit pupil-teachers between fifteen and sixteen for engagements of three years, as from August, 1904.

Newcastle.

THE Education Committee has arranged to take over the Rutherford College as a going concern.

Oldham.

THE Education Committee is becoming alarmed at the rapid growth of its expenditure, and has decided to send a letter to the local members of Parliament upon the subject. The rates for elementary education only in Oldham have been: 1903-4, 1s. 8d. in the pound; 1904-5, 1s. 10d.; and 1905-6, 2s.1d.

Plymouth.

THE Education Committee has made a new departure in the establishment of "The School Children's Fund." The objects are to enable children's wants to receive attention, and to give immediate assistance in urgent cases, and to foster among the children the duty of practical sympathy with their necessitous school-fellows. The funds are to be applied to the provision of meals, wearing apparel, spectacles, surgical appliances, treats for afflicted scholars, and sundry grants.

Sheffield.

THE new University has received notice that the charter will be granted. An exhibition of scholars' work in the public elementary schools has recently been held in the Corn Exchange.

Smethwick.

PLANS have been approved by the Education Committee for the erection of a centre for defective and crippled children, at a cost of £1,850. The annual maintenance charges for the proposed school figure at £310.

Tynemouth.

THE Education Committee requires a rate of 1s. 2½d. in the pound for elementary, and 1½d. for higher, education. The committee's expenditure shows an increase over last year of 2d. in the pound.

Warwickshire.

THE Education Committee has adopted a scheme of scholarships for boys, tenable at the Nuneaton Grammar School and of the value of £6 and £8 yearly. An important Mining School scheme has also been approved, which includes classes, both elementary and advanced, and the award of a scholarship at Birmingham University. The education rate is 8d. in the pound. Owing to an increased average attendance, the sum of £2,200 more has been earned in grants. There is an increase of ½d. in the higher education rate.

West Sussex.

THE Education Committee's expenditure continues to increase, the estimates for the ensuing year requiring a rate of 1s. in the pound, as against 8d. last year. In spite of this, the committee, in common with other education authorities, is considering the question of raising the teachers' salaries.

NOTES AND ANSWERS.

Taxation of Machinery. A Direful Picture of Ruined industries, Manufacturers Driven from London, and Situations Lost. It is Quite Clear, However, that Machinery is To Be Taken Into Account in Fixing Rateable Value. Non-Provided Schools and the Question of the Proportion of Fees Returnable. Urban District Councils Are Not Bound to Cleanse Cesspools in their Districts. May a Pensioner of the London Fire Brigade Wear His Uniform?

[BY A BARRISTER.]

708.—IS MACHINERY LEGALLY RATEABLE?

The enclosed has been circulated in large numbers in this (metropolitan) borough. Would you kindly, in your "Notes and Answers," say what the real position is in regard to the taxation of machinery?—"G.M."

Our correspondent enclosed a circular, by which all users of machinery in the borough are summoned to a meeting to "learn how they have been illegally assessed, and how they are likely to have these illegal assessments continued and further increased. How by being 'bluffed' and 'bounced' their rates will be more than doubled by illegal impositions upon their personal property unless some action is taken at once.

"This is a matter of the utmost importance to all industrial concerns, and if they permit this state of things to continue they will gradually be driven as manufacturers from London, industries ruined, and a vast portion of the population will be thrown out of employment.

"The Exemption Act of 1840 (which very few ratepayers seem to know exists) is the law of the land to-day, it has never been repealed, and is brought into force every year by the usual Government Continuation Act, but is being ignored by the authorities.

"The Exemption Act of 1840 says:—'That from and after the passing of this Act, it shall not be lawful for the overseers of any parish, township, or village, to tax any inhabitant thereof as such inhabitant in respect of his ability derived from the profit of stock in trade, or any other property, for or towards the relief of the poor.'

"If this does not mean the contents of his premises, what does it mean?

"No authority has ever carried a test case to the House of Lords, and whenever a ratepayer has shown fight up to the Appeal Courts, the rating authorities have climbed down, and have not assessed him upon his plant."

The circular from which we have made the extracts, as above set out, ignores the fact that a long line of judicial decisions acquire in time the force of law, and though it is true that no case in which the rateability of machinery has been challenged has been taken to the House of Lords, more than one has gone to the Court of Appeal, and that Court has laid down, in clear and unmistakable language, that machinery is rateable in the sense that it should be taken into account in fixing the rateable value of any hereditament to which it is attached. It will be well to glance briefly at the history of this important question which excites much interest in the manufacturing community.

Up to the year 1840, when the Poor Rate Exemption Act, above referred to, was passed, *personal* property generally, including stock-in-trade, and all machinery, whether physically made part of the manufacturing or not, was rateable according to law. In practice, however, such property was not usually rated. That Act has been continued in force up to the present day. By the Parochial Assessment Act of 1836, the rate for the relief of the poor is to be made upon the nett annual value of the hereditaments in the particular parish affected—that is to say, the rent at which the same might reasonably be expected to let from year to year, free of all usual tenants' rates and taxes. Since the Act of 1840, machinery has not been rateable *per se*, but the decisions of the Court of Appeal in 1886 in the famous Tyne Boiler Works case, and again four years later in the Chard Union case, have authoritatively established the rule that certain kinds of machinery are to be taken into account in valuing factories for purposes of the Valuation List. "I believe the rule really to be" (said Lord Esher, the Master of the Rolls, in the earlier of these cases), "that things which are on the premises to be rated, and which are there for the purpose of making, and which make, the premises fit as premises for the particular purpose for which they are used, are to be taken into account in ascertaining the rateable value of the premises." In the Chard Union case, the Court held that certain machinery capable of being taken down and removed without any injury to the machines, or structural damage to the hereditaments, had to be taken into account, whether fastened to the floor or not so fastened, as enhancing the rateable value of the premises. Though it is quite clear, therefore, that machinery is to be taken into account in fixing rateable value, there is great uncertainty in the law as regards what kinds of machinery are to be so taken into account, and the practice varies greatly in different unions. Several Bills have been introduced into Parliament since 1887 on the subject, and the Royal Commission on Local Taxation (whose final report, issued in 1901, contains a brief history of the subject, and an account of the law as it stands at present) recommended that in estimating the rateable value of any hereditament occupied for trade, business, or manufacturing purposes there shall be excluded from the assessment any increased value arising from machinery, tools, or appliances *which are not fixed*, or are only so fixed that they can be removed from their place without necessitating the removal of any part of the hereditament.

709.—DISFRANCHISEMENT FOR ILLEGAL PRACTICES IN CONNECTION WITH MUNICIPAL ELECTION.

I wrote to you some weeks ago under the title of "Election Petition," to which you were kind enough to reply in your issue of March 3rd. (Vide Query No. 647.)

You asked me to send you further particulars of the charges against me. I have now pleasure in handing you the local paper report of the Election Commissioner after an inquiry held at the local Court House, which lasted eight days. You will observe that a host of people were disfranchised, whilst five persons, including myself, were "reported" to the election judges. Strange to say, only two persons, viz., myself and a friend, were proceeded against, and we had to appear first before the local magistrates, who committed us to the Assizes, which were held at Leeds, in August last. The actual charges against the two of us were reduced to "treating" only, and we were fined £50 and £25 respectively, and all costs. It will be interesting to me if you can kindly give me your opinion as to the term of my disqualification.—"ELECTION PETITION."

The newspaper cutting enclosed contains the findings of the Commissioners appointed to try the election petition against our correspondent's return. Paragraph 34 thereof reads thus:—"I have to report that the respondent was himself, and by his agents, guilty of corrupt and illegal practices at the said election. . . . I refused to grant the respondent a certificate of indemnity." At the Assizes our correspondent was found guilty of "treating," that is to say, of a "corrupt practice." With reference to this offence, it is provided by Sec. 6 of the Corrupt and Illegal Practices Act, 1883 [applied to municipal elections by Sec. 2 of the Municipal Elections (Corrupt and Illegal Practices) Act, 1884], that "a person who is convicted on indictment of any corrupt practice, shall (in addition to any punishment as above provided) be not capable during a period of *seven years* from the date of his conviction of being registered as an elector, or voting at any election in the United Kingdom, whether it be a Parliamentary election or an election for any public office" (*i.e.*, municipal, Poor Law, education authority, or district council), or of holding public or judicial office.

710.—HAVE THE PUBLIC OR RATEPAYERS A RIGHT TO BE PRESENT AT MEETINGS OF THE GUARDIANS?

Kindly say if the general public, or ratepayers, have a right to be present at the ordinary meetings of guardians.—"B."

It is competent for a board of guardians to admit or exclude the public, including ratepayers, from the meetings of the board as it may deem advisable, and the board is not required to hold its meetings in public by any statutory or other authority. Under Rule 1 of Schedule I. to the Public Health Act of 1875, as applied to Poor Law authorities by Sec. 59 of the Local Government Act, 1894, boards of guardians may, from time to time, make regulations generally with respect to the transaction and management of their business, and, in pursuance of this enactment, regulations may be made as to the admission or exclusion of the public from their meetings. In certain cases, as where the conduct of an officer of the board is being investigated, the guardians, if well advised, will exclude strangers. (See the case of "Purcell v. Sowler," 41 J.P. 789). Generally, however, facilities are granted to the public in this respect, though no legal right of admission exists as against the guardians.

711.—PRACTICE AS TO PROPORTION OF FEES RETURNED TO NON-PROVIDED SCHOOLS BY LOCAL EDUCATION AUTHORITY.

Our Education Committee allows fees to be charged in the schools. All the schools are voluntary or non-provided. Half fees go to the Council: the other half to the school managers. Can you inform me, through your valuable Journal, what is the practice in other county boroughs?—"J.W."

Under Sec. 14 of the Education Act of 1902, the Local Education Authority may continue to allow fees to be charged in respect of any non-provided school in which fees have been charged before the passing of the Act. Such fees are required to be paid over to the education authority (Sec. 18 (2), but the authority must pay to the managers such proportion of these fees as may be agreed on, or in default of agreement, determined by the Board of Education. We have no information as to the practice in this matter in the case of county boroughs or other authorities. We believe, however, that it is a common practice (and not improbably the usual one), to repay to the managers half the fees so received.

712.—DISQUALIFICATION FOR OFFICE OF COUNCILLOR.

Is a doctor who is receiving vaccination fees from a district council qualified for a seat on that council? If not, point out the Act under which he is disqualified. And, if qualified, please mention the Act which qualifies the same.—"J.E."

District councils do not pay vaccination fees to medical men. Those fees are paid by boards of guardians under contracts with their medical officers. Any person receiving vaccination fees from the guardians would generally be a person interested in a contract with the guardians, and so long as this contractual relationship exists, and there is anything to be done thereunder (other than the mere settlement of account), such person is disqualified for office as a guardian, by reason of his being interested in a bargain or contract with the board. The district councillors for any rural parish are also the representatives of that parish

on the board of guardians, and, where anyone is disqualified under the circumstances above indicated for office as a guardian of a rural parish, he will not be qualified to act as councillor for that parish on the rural district council. Does this meet our correspondent's point? The question as it stands seems to be based on some misapprehension as to the functions of a district council.

713.—IS AN URBAN AUTHORITY BOUND TO CLEAN OUT CESSPOOLS IN ITS DISTRICT?

Is an U.D.C. compelled to clean out cesspools constructed within a rural portion of its district?

It would appear from Sec. 42 of the P.H Act, 1875, that the cleansing out of cesspools by the local authority is optional, except when required to do so by order of the L.G.B. —"TUDOR."

Urban district councils are not bound to cleanse cesspools in their districts. By Sec. 42 of the Public Health Act of 1875, every local authority (including both urban and district councils) "*may*, and when required by the Local Government Board, *shall* themselves undertake or contract for . . . . . the cleansing of cesspools, either for the whole or a part of their district." It may be added, however, that it is the duty of the sanitary authority, under Sec. 94 (and other provisions) of the Act of 1875, to take the steps prescribed in that Act to suppress public nuisances arising from cesspools and other causes, when their attention has been called to the existence of such nuisances.

714.—LONDON FIRE BRIGADE UNIFORM.

I would esteem it a great favour if you will answer the following query:—I was pensioned off about three years ago, and was allowed to retain the whole of my uniform clothing, which I was entitled to. I am now in a private situation, and I am wearing the tunic, with M.F.B. buttons, as I did in the service. The title of the brigade is L.F.B. since 1904. Is there any law or bye-law in existence to prohibit my wearing the M.F.B. uniform tunic in a private service?—"M.F.B. FIREMAN."

We are not aware of any law or bye-law bearing on this matter. If our correspondent chooses to wear the uniform, probably no one will interfere with his doing so. We should think, however, that there is some objection to his doing so, even though the lettering on the tunic has been altered, inasmuch as he is no longer a member of the brigade, yet is liable to be taken to be such by the public by reason of his wearing the uniform. The question raised, however, is hardly a legal one, and we think our correspondent should communicate with the official head of the Local Fire Brigade, and ask whether there is any objection to his continuing to wear the old uniform. The matter seems to be one rather affecting the discipline of the Fire Brigade, and it may be that the London County Council has a regulation on the point raised.

715.—PREMISES DRAINED INTO CESSPOOL —New Sewer Constructed — Can Local Authority Compel Owner to Connect?—Public Health Act, 1875. Sec. 23.

A house standing on an old main road, with a large garden in front, was redrained about two years ago, according to plans approved of by the Urban District Council. As there was no sewer within 500 yards, a proper cesspool was constructed to receive the sewage. The whole of the work was passed by the local authority. No nuisance has ever been occasioned, as the local authority undertakes the emptying and cleansing of the cesspool when required. No complaint has ever arisen. A sewer has just been constructed in the main road, and the surveyor now calls upon the owner of the house, under Sec. 23 of the Public Health Act, to connect his drains to this sewer, and to convert his cesspool into an inspection chamber. The point is whether the local authority has power to serve a notice under Sec. 23 upon the owner of a house which has been recently put into proper order and approved of by the local authority. No complaint can be made against the drains, but the owner is required to pay for connecting his drains to the new sewer.—"THETIS."

Sec. 23 of the Act of 1875, above referred to, provides that where any house within the district of a local authority is without a drain sufficient for effectual drainage, the local authority shall, by written notice, require the owner or occupier, within a reasonable time, to make a drain emptying into any sewer belonging to, or under the control of, the authority within 100 feet of the premises; "*but if no such means of drainage are within that distance, then emptying into such covered cesspool or other place . . . as the local authority direct.*" It seems to us that on the construction of this section, without any reference to decided cases, the drain provided under the circumstances set out by our correspondent, must be regarded as complying with the statutory requirement, and that the authority is not entitled to direct the owner of the premises in question to redrain and connect to the new sewer. But the principle involved has been the subject of judicial decision, and the cases of "Attorney-General v. Clerkenwell Vestry" (1891, 3 Ch. 527), "Molloy v. Gray" (24 L.R., Qr. 258), and "St. Martin's-in-the-Fields Vestry v. Ward" (1897, 61 J.P. 19) seem conclusively to confirm the view that the local authority cannot, under the circumstances, insist on the owner or occupier of the premises affected draining into the new sewer at his own expense.

716.—PRIVATE STREET WORKS—Can Part of Street be Made Up Now and Part Later On?—Apportionment.

1. In what way should the cost of making up private streets under Sec. 150 Public Health Act, 1875, be apportioned? I am aware the owners of the property on both sides are liable. But where a path on one side of the street only is required (there being gardens only on the other side), should the cost of making the path be apportioned between the owners of property on both sides of the streets or the owners of one side only?

2. If the Council takes over the streets, can it compel the owners to make up the path (where none is now required) at some future time, should there be houses erected on that side, and of course pay the cost of same?—"TOGO."

1. The case of "Wakefield Urban Sanitary Authority v. Mander" (44 J.P. 522) raised a similar point under Sec. 150 of the Act of 1875. There an urban authority had repaired the footway on the south side of a street, and apportioned the whole cost amongst the owners and occupiers on the south side only; and the court held that the apportionment was right. The section provides (*inter alia*) for cases where "the footway or any other part" of a street is required to be made, and for the apportionment of the cost on the owners of "the premises fronting, adjoining, or abutting on such parts." It should be pointed out, however, that in a later case, decided under the corresponding provisions of the Private Street Works Act, 1892 (which differ in detail from those of the Act of 1875), the above case was "distinguished," and the court there held on similar facts that the cost must be apportioned on the frontagers of both sides of the street. "Clacton-on-Sea Local Board v. Young" (1895, 1 Q.B. 395).

2. There is nothing to prevent the council requiring "the path where none is now required" to be made up later on, at the expense of the frontagers, provided the street has not meanwhile been adopted by the council. The case of "Barry and Cadoxten Local Board v. Parry" (1895, 59 J.P. 421) has gone farther than this in deciding that the urban authority may call upon the frontagers to do any of the necessary works (except sewering), from time to time, as occasion may require, unless and until the street has been declared to be a highway, repairable by the inhabitants at large, notwithstanding that such work may have been previously done to the satisfaction of the authority at the expense of the frontagers.

It may be mentioned in connection with the subject of this query that if the usual code of bye-laws as to new streets is in force, one of them would require a footpath to be made on each side of any new street. If bye-laws are in force, therefore, they should be examined on the point.

717.—RATES—"Allowances" to Owners—Can Owner Deduct from Current Rate. Arrears of "Allowances."

In 1904, the Corporation received a letter from J.M.P., which was the first intimation that certain property belonging to him was let on a monthly or shorter tenancy, and the allowances on rates made to owners was accordingly made to him for the year ending the 31st of March, 1904; but the Corporation refused to make the allowance for the back years, on the grounds that the past rates could not be recovered, and, further, that the deduction could only be made from the then current year's rate. (See case, "Mile End Old Town Vestry v. Whitby," 78 L.T.N.S. 80). Since then the claimant has been annually allowed to make the deduction; but on the 17th of March addressed a letter to the Borough Accountant respecting the present general district rate, amounting to £1 12s. 1d., and therein he states that he will deduct £1 5s. 10d., the allowances for back years from his rate, leaving a balance of 6s. 3d., cheque for which he encloses. The Corporation, of course, has no power to include any such allowances for the back years (See Sec. 210 Public Health Act, 1875) in its estimates, and it would appear that protection is given the Corporation by Sec. 1 (a) of the Public Authorities Protection Act. Will you kindly favour me with your opinion on the following points, viz.:—

1. Is the claimant entitled to deduct the allowances for back years from the present rate or to recover in county court?

2. If not, should he be summoned for the recovery of the balance due after taking the 6s. 3d. on account? And generally on the subject?—"CLERK."

We have had to abbreviate our correspondent's query, which is somewhat lengthy for these columns, and more in the nature of a case for counsel than a query for a public journal. It is not stated whether the allowances to J.M.P. are shown in the rate-book. In the legal decision mentioned above, it was held, "that where a tenant had agreed to pay all outgoings, and a new drainage rate was subsequently imposed, to be paid by the tenants, the agreement did not apply to such rates, but that only the current rate could be deducted from his rent, and that past payments could not be so deducted.

The Corporation seems to have a wide discretion under Sec. 211 (1) (a) of the Public Health Act as to the rating of owners instead of occupiers. The relevant words on this point are: "The owners instead of the occupier may, *at the option of the local authority*, be rated" (in certain cases). It is not stated how or when the authority in this present instance had exercised this option. Sec. 210 of the Act of 1875 (above referred to) relates to the expenses which may be included in a general district rate. Such rate may not cover expenditure incurred more than six months prior to its making. Apparently the section does not help on the points submitted.

1. On the information submitted, it seems to us that J.M.P. is not entitled to deduct the "allowances" for past years from the current rates demanded.

Even if he is able to prove definitely that the Corporation granted him the "allowance" which may be made to owners under Sec 211 (1) (a) of the Act, he could not, apparently, now take proceedings for the return of the overpayments made since such allowances were first granted, having regard to the provisions of Sec. 1 (a) of the Public Authorities Protection Act. Under that enactment, where "any action, prosecution, or other proceeding is . . . commenced . . . against any person for any act done in pursuance or execution or intended execution of any Act of Parliament, or of any public duty or authority," &c., such action, prosecution, or proceeding must be brought within six months after the "act, neglect, or default" complained of. The case of "Selmes v. Judge" (35 J.P. 645, L.R. 6 Q.B. 724), as to levy of a highway rate improperly or irregularly made, seems to be an authority for applying the above provision to the present circumstances.

2. It would apparently be open to the Corporation to take the ordinary steps for the recovery of the amount of the current rate due, less the "allowance" which it has now been decided to make to the owner.

UNEMPLOYED BILL.

The Local Government Board's New Measure for Dealing with the Unemployed Problem creates Statutory Bodies with Powers to Levy Rates. Compulsory in London and Optional in the Provinces. Work Confined to Farm Colonies.

MR. GERALD BALFOUR, the President of the Local Government Board, introduced a "Bill to establish organisation with a view to the provision of employment or assistance for unemployed workmen in proper cases," in the House of Commons on Tuesday evening. The following are the principal clauses of the measure:—

1.—(1) For the purposes of this Act there shall be established, by order of the Local Government Board under this Act, a local body for every metropolitan borough in London, consisting of members of the borough council and of any board of guardians in the borough, and a central body for the whole of the administrative county of London, consisting of members of the local bodies and of the London County Council, with power in each case to co-opt any persons to be additional members of the body, but the number of the persons so co-opted shall not exceed one-fourth of the total number of the body.

(2) The local body shall make themselves acquainted with the conditions of labour within their area, and inquire into and discriminate between any applications made to them from persons unemployed.

"To Find Work."

(3) If the local body are satisfied that any such applicant is honestly desirous of obtaining work, but is temporarily unable to do so from exceptional causes over which he has no control, and consider that his case is capable of more suitable treatment under this Act than under the Poor Law, they may endeavour to obtain work for the applicant, or, if they think the case is one for treatment by the central body rather than by the local body, refer the case to the central body, but the local body shall have no power to provide work for any unemployed person.

(4) The central body shall superintend, and, as far as possible, co-ordinate the action of the local bodies, and aid the efforts of those bodies by establishing, taking over, or assisting labour exchanges and employment registers, and by the collection of information and otherwise as they think fit, and shall inquire into any cases referred to them by the local body.

(5) The central body may, if they think fit, in any case of an unemployed person referred to them by the local body, assist that person by aiding his emigration, or his removal to another area, or by the provision of temporary work, or otherwise in such manner as they think best calculated to put him in a position to obtain regular work or other means of supporting himself:

Remuneration.

Provided that the total weekly remuneration given for any temporary work so provided shall be less than that which would under ordinary circumstances be earned by an unskilled labourer for a full week's work, and, except with the consent of the Local Government Board, temporary work shall not be so provided for the same person in more than two successive years.

(6) For the purposes of this section, work shall be deemed to be provided by a body established under this Act (although the workman is not actually employed by that body) if that body have arranged for the employment of the workman and contribute towards the payment given in respect of that employment.

Rates.

(7) Any expenses of the central body under this Act, and any expenses of the local bodies under this Act, if incurred with the consent of the central body, shall be defrayed out of a central fund under the management of the central body, which shall be supplied by voluntary contributions given for the purpose, and by contributions made on the demand of the central body by the council of each metropolitan borough in proportion to the rateable value of the borough, and paid as part of the expenses of the council.

Provided that—

(a) A separate account shall be kept of all sums supplied by contributions made by the councils of the metropolitan boroughs, and no expenses of providing temporary work under this section except at a farm colony shall be paid out of that account.

(b) No such contribution by a council shall in any year exceed the amount which would be produced by a rate of *one halfpenny* in the pound, calculated on the whole rateable value of the borough, or such higher rate, not exceeding *one penny*, as the Local Government Board may approve.

(8) The provision of temporary work or other assistance for any person under this Act shall not disentitle him to be registered or to vote as a parliamentary, county, or parochial elector, or as a burgess.

(9) This section shall apply to the City of London as if the City of London were a metropolitan borough, and the mayor, aldermen, and commons of the City of London in common council assembled were the council of the borough, and any contribution required for the purposes of this Act shall be paid out of the consolidated rate, but shall not be reckoned in calculating the amount of the rate for the purpose of any limit on that amount.

In the Provinces.

2.—(1) There shall be established by order of the Local Government Board for each county borough a body for the purposes of this Act, with a similar constitution to that of a local body in London, and the body so established shall, as regards their borough, have the same duties and powers, so far as applicable, as are given by this Act to the local bodies and central body in London:

Provided that, on the application of the council of any county borough, the Local Government Board may postpone the establishment of a body under this provision until such time as the council resolve that circumstances render the establishment of such a body desirable.

L.G.B. Discretion.

(2) The Local Government Board may, on the application of any county or district council, or board of guardians, by order establish for the purposes of this Act in any county or part of a county, a central body and local bodies with similar constitutions to those of the central body and local bodies in London, and those bodies shall, subject to any exceptions made by the order, have the same duties and powers as respects their area as are given by this Act to the central body and local bodies respectively in London.

(3) Where bodies have not been established under this Act for the whole of a county, the council of that county, and where a body has not been established under this Act for a county borough, the council of that county borough shall constitute a special committee under this Act, consisting of members of the council, with power to co-opt any persons to be additional members of the committee; but the number of persons so co-opted shall not exceed one-fourth of the total number of the committee.

To Collect Information.

It shall be the duty of the council, in such a case, through the special committee, to collect information with respect to the conditions of labour within their area by establishing, taking over, or assisting labour exchanges and employment registers, and in such other manner as they think fit, and to supply any such information when required.

Any expenses incurred by a council under this provision shall be paid in the case of a county council out of the county fund, and in the case of a borough council out of the borough fund or borough rate.

(4) Where any order is made under this section as respects any area, the provisions of this Act relating to London shall apply with respect to that area, with such modifications and adaptations as may be made by the order.

3. Where at any time bodies are about to be established for any area under this Act, any body already established in that area, whether before or after the passing of this Act, for the purpose of dealing with the unemployed, and any special committee under this Act, may, if the Local Government Board think fit, be temporarily constituted by order of that Board, central or local bodies, as the case may be, until bodies are properly established for that area in accordance with this Act.

Details.

4.—(1) An order of the Local Government Board under this Act establishing any body may provide for the incorporation by an appropriate name and for the constitution and proceedings of that body, and, where any property or liabilities are taken over by that body from any other body, for effecting by virtue of the order the transfer of that property of those liabilities, and also for any matter for which provision may be made by general regulations under this Act, and for which it appears desirable to make special provision affecting only the body established by the Order.

(2) An order of the Local Government Board under this Act may be varied, and revoked, by any subsequent order of the Board made under this Act.

(3) The Local Government Board may make general regulations for carrying into effect this Act.

THE decision of the Local Government Board on the application of the Corporation of Durham for an extension of the borough boundaries was received in Durham last week. The result is much the same as was expected, and the new boundary closely follows the natural watershed of the city. The additions to the existing boundary, it is estimated, will bring up the population of the town from 14,657 to nearly 18,000. The new Order provides that the city from November next shall be divided into six wards instead of three, and one of the new wards will be formed from the added areas. The whole of the present Town Council, aldermen included, will go out of office in November, and an entirely new council will be elected—three councillors for each ward—while in future one councillor will retire annually from each ward. The Parish Council of Neville's Cross will cease to exist, and a new Council for such of that area as is not included in the city will be elected. Provision is made for differential rating in the new areas for twelve years, and a large number of small details are provided for.

THE new Free Library erected at Yarmouth by the generosity of Mr. Andrew Carnegie, who made a gift of £7,000 to the town for the purpose, was opened a few days ago by the Mayoress (Miss Mayo), who was presented with a gold bracelet instead of a gilt key. The new building is handsomely planned, with shelving accommodation for 20,000 volumes. In connection with the lending department, though separated from it, are a newsroom for consulting the journals of the day, a magazine room, and a ladies' room. Each department has a coved roof, the windows are of stained glass, the walls are panelled with American walnut unstained, and the vestibule has been worked out in marble, with a mosaic floor. Electric light is fitted throughout, the heating is by hot-water pipes and radiators, and the floors are fireproof.

THE Marquis of Londonderry, K.G., President of the Board of Education, has appointed Mr. P. A. Barnett to the newly-created post of Chief Inspector of the Board for the Training of Teachers.

A CHORUS
OF
APPRECIATION
OF THE NEW ISSUE
OF THE
Municipal Year Book,
1905.
NEARLY 700 PAGES.

Price 3s. 6d. By Post 3s. 11d.

A Local Government Official: "The volume contains all that could be desired as a reference to municipal affairs."

A Town Clerk: "Your exceedingly valuable YEAR BOOK."

The Times: "A valuable publication. . . . A complete analysis of municipal activity throughout the country."

The Spectator: "This volume contains a vast amount of information about the management of municipal affairs in all the cities throughout the United Kingdom."

Pall Mall Gazette: "It would be hard to mention a subject of public activity and inquiry or a borough of note not dealt with in this volume of six hundred pages of veracity for three-and-six."

Globe: "The MUNICIPAL YEAR BOOK has grown into a volume as portly as it is unquestionably valuable."

Scotsman: "Each new edition increases both its size and its utility."

Glasgow Evening News: I have just been dipping into what in its way is one of the most wonderful little books in the world. Perhaps the word "little" is somewhat misplaced, but first impressions are hard to efface altogether, and, as has been said once before in this column, the "Municipal Year-Book," when I first knew it, was a comparatively slim little volume in a mildly orange cover which seemed almost to offer an apology for its existence. It is slim no longer, little no longer, not quite sure of its ground no longer, but a handsomely-bound, almost formidable volume of more than 600 pages, packed full of fact of high significance and moment. I have called the "Municipal Year-Book" for 1905 a wonderful book. There is no mistake about that adjective. The book is wonderful — wonderful in itself as a compendium in fact and figure of the municipal life of to-day, and wonderful in relation to what it stands for. I am quite aware that you will search the bookstall high and low in vain for a copy of this volume — it is not the sort of thing most people would select to wile away the tedium of a railway journey. Nor does it get any place at all in the front row in the bookseller's window. All the same, this work is closer up to the life of the people, more telling in its tale of the life we live now, more impressive in its revelation, more persuasive in its teaching about the common things that matter so much to the individual and the community, than probably any other book that has been issued from the press this year.

LONDON: EDWARD LLOYD, Limited
12, Salisbury Square, E.C.

Official Advertisement.

WALTHAMSTOW URBAN DISTRICT COUNCIL.

LOANS.

THE Walthamstow Urban District Council desire to BORROW the following AMOUNTS for Educational purposes:—

£20,191 repayable within 28 years.
£12,899 repayable within 30 years.
£6,298 repayable within 30 years.
£312 repayable within 10 years.
£2,600 repayable within 60 years.
£32,000 repayable within 30 years.

The loans will be repayable by equal half-yearly instalments of principal and interest combined.

Offers of all or any of the above-mentioned amounts, stating rate of interest, and an amount to cover all legal and other expenses, to be delivered to the undersigned, not later than 5 o'clock p.m. on Monday, the 1st day of May, 1905.

C. SYDNEY WATSON,
Town Hall, Clerk to the Council.
Walthamstow,
17th April, 1905.

YOUNG married man, 30 years, life abstainer and non-smoker, with good business capabilities, is seeking an appointment, under a Municipal Authority, as buyer, storekeeper, inspector, or other such position. Excellent references.—G. J. A. B., 79, Skeffington Road, East Ham, E.

WANTED, a position as Assistant or Storekeeper, by an Army Reservist. Age 35. Life long abstainer. Can be well recommended. Trial not objected to. —Apply, C. C., "Municipal Journal" Office, 12, Salisbury Square, E.C.

ACCOUNTANTS (unattached) and CLERKS, with thorough knowledge of book-keeping, both in London and provinces, and whether in practice or employment, are invited to send for the Circular of the London Association of Accountants, Ltd., which Association offers many valuable privileges to those desirous of success in their profession.—21, Balfour House, Finsbury Pavement, E.C.

AGENTS REQUIRED in unrepresented districts for the Imperial Accident, Live Stock, and General Insurance Co., Ltd. Estd. 1878. Departments: — Personal Accidents, Carriage and Drivers' Accidents, Horse and Cattle Insurance. Claims paid £300,000. Address Mr. B. S. Essex, Manager, 17, Pall Mall East, London, S.W.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment,
LONDON, W.C.
Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

Bonds are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds Approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary. SHIRLEY FUSSELL.

BRITANNIC ASSURANCE COMPANY, Ltd.

(formerly called British Workman's and General).

ESTABLISHED 1866.

INDUSTRIAL & ORDINARY BRANCHES.

ANNUAL INCOME	at rate of	£1,000,000
RESERVE FUNDS	nearly	£1,400,000
CLAIMS PAID		£4,300,000

Gentlemen able to influence good business will find the Company's Agency Terms very remunerative. Agency Terms and Prospectuses on application to
S. J. PORT, Secretary.

Chief Offices: BROAD STREET CORNER, BIRMINGHAM.

THE BEST JUDGES OF CIGARS
Now obtain their supplies at
BENSON'S, 61, St. Paul's Churchyard, London.
Really good Foreign Cigars at 16s., 20s., 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

SUN FIRE OFFICE

HEAD OFFICE:
63, Threadneedle Street, London, E.C.
Branch Offices in London: 60, Charing Cross, S.W.; 332, Oxford Street, W.; 40, Chancery Lane, W.C.; 4, Mincing Lane, E.C.

BIRMINGHAM .....10, BENNET'S HILL.
BRISTOL..... CORN STREET.
LEEDS.....SUN BUILDINGS, 15, PARK ROW.
LIVERPOOL.....SUN BUILDINGS, 6, CHAPEL-ST.
MANCHESTER..... 71, KING STREET.
NEWCASTLE..... 19, COLLINGWOOD STREET.
EDINBURGH.....40, PRINCES STREET
GLASGOW..... 42, RENFIELD STREET.
DUBLIN .....10, TRINITY STREET.

Funds in Hand, £2,535,800.

DELICIOUS COFFEE.
RED WHITE & BLUE
For Breakfast & after Dinner.

In making, use LESS QUANTITY, it being so much stronger than ORDINARY COFFEE.

Demy 8vo, Cloth Boards, price 5s. net, post free.
RATEABLE MACHINERY
By GEORGE WASTALL, F.S.S., Rating Surveyor, &c.
Invaluable as a work of reference to Rating Authorities, Guardians of the Poor, County and Borough Councils, Railway, Tramway, Electric Lighting, Gas and Water Companies, Solicitors, Surveyors, Auctioneers Manufacturers, and all users of machinery.
London: Philip Allen & Co., 87, Chancery Lane, W.C.

TO MUNICIPAL AUTHORITIES.

First-class Orchestras, Military Bands, and Concert Parties provided *at minimum rates* for every kind of function, or for Season.

J. HERBERT JAY,
10 & 11, Jermyn Street, Piccadilly.
Telephone—6534 Gerrard.

WARD & MACONIE,
15, HANOVER STREET, LONDON, W.

Municipal Robe Makers and Court Tailors.

PRICE LIST ON APPLICATION.

LIGHTNING CONDUCTORS
Supplied, Erected, & Tested. Chimney Shafts Restored, &c.
J. LEWIS,
5 and 6, Great Winchester Street, London, E.C
TELEPHONE NO. 3053. CENTRAL.

A FACT FOR ADVERTISERS.

STRIKING SUCCESS

OF THE

ENLARGED SERIES

OF THE

MUNICIPAL JOURNAL.

The GUARANTEED BONA-FIDE SALES of the Municipal Journal for the first Four Weeks of March,

1905,

EXCEEDED BY

3,888 copies

the sales for the corresponding period in

1904.

An admirable Food of the

EPPS'S

Finest quality and flavour.

COCOA

Nutritious and Economical.

MUNICIPAL JOURNAL

FRIDAY, APRIL 21, 1905.

Notes and Comments.

The Critics and the "Spendthrifts."

THE self-appointed critics of municipal expenditure have received this week an amusing check. They were riding triumphantly on the top of an agitation against the inevitable "rise in the rates" when—hey, presto!—the London County Council's Education Committee produced its report on the survey of the non-provided schools. The nett result of the proposals which the Council is bound to make as a result of administering the new Acts is a rate of nearly fourpence in the £! The critics were dumbfounded. Here was an increase greater than any they had been railing against, but if they explained its causes they would have to "round" on their own friends. So, instead of trouncing the authors of the Education Acts, these courageous critics adopted the political fashion of the moment, and—ran away. They ignored this momentous rate-increasing report, and only three of the London papers on Monday morning contained any reference to it worth mentioning. When on Tuesday one of the "reactionaries" tried to make up the leeway, it proved its competency for dealing with matters such as these by publishing extraordinary and misleading figures, arrived at by its office arithmetician, that made its own case worse than it really was. The ignorance of some of these flashy organs of public opinion is simply amazing. A representative specimen of them has this week been explaining to its readers why the people are being "crushed by the rates." Remember, we are dealing with a debt of 400 millions sterling, and an annual expenditure of about 144 millions. The following is the sort of mental pabulum to which the readers of the paper are treated:—

> Twenty-five years ago members of public bodies were content to sit round tables in chairs which did not cost a sovereign apiece; to put their feet on Brussels or Kidderminster carpets; to do their business in rooms and under conditions such as would obtain in ordinary daily life.
>
> To-day the councillor of a growing town sits in a chair which costs anything from £3 to £5, puts his feet on the richest Turkey carpet, and gazes complacently on a scene of magnificence, exceeding in comfort anything which can be found in the Houses of Parliament.
>
> Many of these councillors do not get luxurious chairs and carpets at home, nor sit to do their private business in a blaze of electric light, where the electroliers have cost more than those found in the homes of millionaires.
>
> They may, and often do, live in houses where even gaslight is regarded as too dear, and where linoleum is considered good enough for the inmates.

In London just now balderdash of this description does duty for the serious criticism of economic questions, and the papers which print it boast that they possess a national influence.

Rating of Land Values.

WE prophesied last week that the anti-municipal papers would prove the insincerity of their agitation against the "rise in rates" by attacking the Land Values Rating Bill, which, if put into operation, would reduce those rates. The same morning the *Municipal Journal* was published the *Daily Mail* came out with a strong leading article, headed "The Spendthrifts' New Scheme," directed against Mr. Trevelyan's very modest measure. The influence of that thoughtful organ, however, was not sufficiently strong to prevent the second reading being carried in the House of Commons by a majority of 90 votes—23 more than on the last occasion. The victory was worth having, but like many similar triumphs recently, it means nothing except that the majority in the House of Commons dare not vote against the Bill, which has the overwhelming opinion of the country in its favour. If the rating of land values got through the Lower House it would never survive the Upper Chamber, and before the measure comes into law a very great Constitutional change will have to be effected. The Bill has encountered opposition from unexpected quarters. Mr. Harold Cox violently and inconsistently denounces it, urging in almost the same breath that its provisions will not touch the ground landlord, and that it would be immoral and iniquitous to "rob" that public benefactor. Obviously, if the Bill were to fail in its object, it would not encroach upon the preserves of the ground landlord, so that accepting Mr. Cox's first argument, the second one becomes absurd. The Government view of the measure was that it was an "infamy," but electioneering reasons prevented the "infamy" being officially opposed. Local authorities have now only one thing left them to do. They must introduce this Bill into Parliament session after session and year after year until it becomes law. There are limits beyond which even Governments cannot go in resisting the will of the people.

Swansea and its Loans.

ANOTHER instance of the disinclination of the authorities to stem the rising rates was afforded on Monday evening in the House of Commons, when the Swansea Corporation Bill came up from Committee. As we explained last week, the point at issue was the length of the period of repayment for waterworks loans. The Swansea Corporation is engaged in the construction of very large waterworks of a permanent character, and while Parliament allowed the period of 60 years for the repayment of the original loan, the periods for the repayment of further sums for the same purposes have been fixed at 30 years, in the first instance by the Local Government Board, and this session by a House of Commons Committee. Under these circumstances, the members for Swansea moved an amendment to the Corporation Bill, with the view to obtaining a uniform period of 60 years for the repayment of the whole loan. The difference between the sixty and the thirty years loans means a rate of 3½d. in the £ every year to Swansea. Sir George Newnes' arguments were irresistible. He pointed out that the works for which the money is required are likely to serve the needs of the town, even at its present rate of expansion, for five or six generations; and he made the point that if a benefit were to be shared by six generations, its cost should not be laid wholly on one. The Local Government Board rode off on the old dodge of loyalty to the Committee. "The House was now invited to overrule the decision of the Committee, who heard evidence, and, without any evidence of the special circumstances of the case, to fix the period of a loan for waterworks under certain conditions. He appealed to the House not to accept the invitation, but to uphold the decision of the Committee." And that was all. Not an argument against the principle at stake. The amendment was defeated by 42 votes and Swansea is condemned to a rate of 3½d. more in the £ than it ought to pay, because it was thought desirable to "adhere to the decision of the Committee." Mr. Gerald Balfour, at the recent banquet of the Association of Municipal Corporations, enlarged upon the need of cultivating amicable relations between the Government departments and the local

authorities. This Swansea loan incident illustrates the kind of treatment the municipalities are to expect from the Local Government Board.

The Unemployed Bill.

As though to heap coals of fire upon the heads of the poor unfortunate municipal critics, the Government on Tuesday evening introduced a Bill the object of which is to put the unemployed on the rates. We reproduce the salient portions of this measure on another page. In London the Bill legalises Mr. Long's unemployed scheme of this winter, and makes its future operation compulsory, with the rates to pay the cost. In the provinces similar bodies are to be set up by a cumbrous process by the Local Government Board, if the local authorities desire them. Thus, in the metropolis the provisions of the Bill are compulsory, while in the provinces they are optional. We cannot conceive a more unworkmanlike way of dealing with this pressing problem. The result will be that the provincial authorities will not think it necessary to put the Act into operation, and the unemployed in periods of exceptional distress will troop to London in their thousands, certain of securing assistance from the London rates. In his speech on Tuesday night Mr. Gerald Balfour seemed to think that it would only be necessary to call upon the rates in order to supplement voluntary subscriptions. That, however, is not our view. People will not give voluntarily and pay rates for the same thing. This measure will put the unemployed wholly on the rates, which in principle. we think, is the right thing to do; but the rates should not be the rates of London, but the rates of the United Kingdom. In other words, the unemployed should be a national charge, and the Government has no right to shirk its responsibilities by placing the odium of rate collection upon the London County Council. Confident on Wednesday morning of finding in the reactionary journals a violent outburst against this Government measure to increase the rates, we were amazed to discover an almost unanimous silence. The *Daily Mail* did not think this halfpenny or a penny levy worth noticing in its editorial columns; the *Daily Express* was also dumb, but it thundered against the London County Council's decision to build itself proper office accommodation. which will cost a rate of about a quarter the amount of the unemployed charge. It was again a question of "rounding" on their friends, or allowing the rates to go up without a challenge, and the public-spirited organs of opinion preferred the latter course. But what would have happened if this measure had been promoted by the Londou County Council? The possibilities are so terrible that we refrain from pursuing them further.

"Trading" at Manchester.

In the Manchester Corporation estimates there are some interesting figures showing how the rates will this year be relieved by "trading" enterprises. The Gas Committee proposes to contribute £50,000 this year in aid of the rates, instead of £60,000 as last year. On the other hand, it will ask only for £62,233 to cover the cost of street lighting, whereas last year the estimate for this work was £71,226. This means a reduction on that account of £8,993, and brings up the committee's contribution in relief of the rates to nearly £59,000, without counting the gain to the ordinary gas consumers from the proposed reduction in the price of gas one penny per 1,000 cubic feet. The profit for the year which ended on the 31st of March, after making full provision for renewals, sinking fund, and all revenue charges, was £62,123. Out of this £60,000 has been paid into the city fund during the year. The Tramways Committee estimates that its income for the year will be, from traffic revenue, £645,250, and from miscellaneous revenue, including Salford's use of lines, rents, &c., £4,552, making a total of £649,802, against £638,775, the actual income for the year just ended. The latter figures are less than the amount that was estimated—£640,665. After meeting expenditure this year, a balance, it is expected, will remain of £206,122, of which £49,560 will go for interest on loans, £38,795 for sinking fund and instalment of loans, £53,200 for the renewals fund and permanent way, and £14,525 for depreciation, leaving a surplus available for the city fund of £46,000, and £4,042 in respect of the infirmary purchase. Last year the committee gave £51,000 to the city fund, £46,000 coming out of profits, and £5,000 from the contingent reserve fund. The parcels department has been left out of the account, because the committee has as yet no data to go upon. On capital account, the committee purposes spending £52,500 this year. Of this sum £35,000 will be for cars and car equipments. In the year just ended the expenditure on capital account was £89,277, although the estimate was for £124,000.

Plymouth and Audit.

A rearrangement of finance methods is rendered necessary by the Local Government Board audit at Plymouth. The chairman of the Finance Committee (Mr. C. L. Duke) and the borough treasurer have interviewed the managers of the National Provincial Bank, and have concluded an agreement with them for a loan of £60,000 to the Corporation on advantageous terms, to provide for expenditure on capital account during the current financial year. Hitherto it has beeu the practice of the Corporation to keep one consolidated banking account, and it has been allowed to overdraw until such time as was considered suitable for the issue of stock. This method of raising money is no longer possible, as one of the restrictions of the local government audit prohibits the payment of interest on overdrafts. In future the Corporation will keep two banking accounts—a loan account and a current account. Sanctions which are received from the Local Government Board will be allocated to the amount borrowed on loan account in the same way as if the debt were funded, sinking fund and interest being paid from the date of borrowing, just as though the money was raised by means of stock. From the loan account such sums will be transferred as required, in order to keep the current account always in credit.

The Secretary of State for the Colonies having requested the Local Government Board to nominate a representative on the Managing Committee of the Emigrants' Information Office, particularly in relation to questions connected with child emigration, the Board has nominated Mr. Howel Thomas, Principal of the Poor Law Administration Department, as its representative on the committee.

Official Advertisements.

BOROUGH OF EASTBOURNE.

APPOINTMENT OF BOROUGH SURVEYOR.

THE Corporation of Eastbourne are prepared to receive applications from properly qualified persons, not less than 35 years of age, for the office of BOROUGH SURVEYOR.

The salary will be £450 per annum, rising by £25 per annum to £600 per annum, subject to the satisfactory performance of the duties of the office.

Particulars of the duties, and the terms of the appointment, and of questions to be answered, may be obtained from me on receipt of stamped directed foolscap envelope.

Applications to be sent to the undersigned not later than 10 a.m. on Monday, 1st May, 1905.

Personal canvassing is strictly prohibited, and will disqualify candidates.

H. WEST FOVARGUE,
Town Clerk.

Town Clerk's Office,
Eastbourne,
April, 1905.

MANCHESTER CORPORATION GASWORKS.

TO OIL IMPORTERS AND OTHERS.

THE Gas Committee of the Corporation of Manchester are prepared to receive tenders for the SUPPLY of OIL for the manufacture of Carburetted Water Gas. The oil to have a flashing point of not less than 73 degrees (Abel's test), and not less than any higher degree of temperature which may be specified in any future Act of Parliament or regulations to be made thereunder. Full description, with analysis of the oil offered, must be submitted with each tender, as well as a sealed sample of the same. The quantity of oil, to be delivered free of all charges (including Ship Canal dues) into the storage tanks of the Corporation, at Trafford Wharf, on the banks of the Manchester Ship Canal, in such quantities as may be from time to time required by the Gas Committee, will be 10,000 to 15,000 tons during the twelve months ending 30th September, 1906. Tenders to be at a price per imperial gallon.

Further particulars may be obtained on application (in writing only), to Mr. Charles Nickson, Superintendent of the Gas Department.

Sealed tenders and samples, addressed to the Chairman of the Gas Committee, and endorsed, "Tender for Gas Oil," must be delivered at the office of the Superintendent of the Gas Department, Town Hall, Manchester, on or before Wednesday, the 10th May, 1905.

The Corporation do not bind themselves to accept the lowest or any tender.

By order of the Gas Committee.
WM. HENRY TALBOT,
Town Clerk.

Town Hall,
Manchester.
7th April, 1905.

OUT-RELIEF.

With the Object of Systematising Out-Relief in Various Unions, the Yorkshire Poor Law Officers' Association has Compiled a Very Comprehensive and Valuable Set of Model Rules. Administration in All its Aspects, and Specific Information under Many Heads. Discussion of the Oft-repeated Phrase, "Give the Old Man Half-a-Crown, it is Cheaper than Sending Him to the Workhouse."

WITH the hope that it may help boards of guardians to distribute out-relief according to proper principles, the Yorkshire Poor Law Officers' Association has got out a set of model rules for the administration of out-relief, drafted by a sub-committee of the executive, and these rules will shortly be in the hands of members of boards of guardians, who will be asked to adopt them.

This fundamental subject, the importance of which is still too little realised, has been brought before readers of the Municipal Journal a good deal of late. To the earnest student of Poor Law subjects, not the least disquieting of the many problems that are waiting to be solved is that of adequate and discriminate out-relief and its effects on poverty. Anyone familiar with relief committees and their ways has heard the well-meant plea: "Give the old man a half-crown a week, it is cheaper than sending him to the workhouse." But is it cheaper? If the one unit only is thought of, perhaps it is, for if he be properly cared for in the modern workhouse he will cost the ratepayers more than if he were merely given a dole and left to his own resources to spend it, let us hope, wisely and well.

But if we take a broader view of the matter, we arrive at a very different conclusion. What is the effect of this weekly half-crown upon the old man's neighbours? Other old men, and those who are not old, begin to hanker after a similar sum. "Old Brown up the street gets it, why shouldn't I?" That is how many people reason, who doubtless find the struggle of life a very hard one. Out-door relief spreads like an epidemic.

But there is still a further view. Give an old man half-a-crown a week, and let him spend it never so wisely, it will soon be found that he is ousting the genuine worker from his "job," for the simple reason that the ratepayers enable him to undersell his labour. This is granting that the money is spent wisely and well; but every guardian knows how large is the proportion of old men and women in receipt of relief who are either physically or mentally incapable of taking care of themselves, or who live in such surroundings or among such people that a healthy or a decent life is impossible.

What we have said applies much more forcibly to other than old people. There is a shred of truth in the contention that there is little use in special regulations with regard to out-relief to aged poor; but there is absolutely none, in our opinion, in the statement that bye-laws for the guidance of relief committees are useless. And yet, if we remember rightly, that was the conclusion that a special committee of the Huddersfield Union came to some two years ago.

The really difficult question is, what is discriminate out-relief? No board of guardians, we take it, would state that it gives indiscriminate relief. It is only by having a standard that any uniformity or system can be obtained on this vitally-important branch of Poor Law administration. It is only in this way that the misuse of the ratepayers' money and the abuse of the independence of the poor can be avoided.

No doubt, the realisation of these truths has led the Yorkshire Poor Law Officers' Association to take action. Here is the first rule it has drawn up for granting out-relief:—

1. No out-relief shall be granted in any of the following cases except under such special circumstances as the particular Board of Guardians may, after consideration, resolve that it is desirable to depart from the rule:—

(a) To single able-bodied men or single able-bodied women.
(b) To able-bodied widowers or widows without children.
(c) To deserted wives.
(d) To wives or families of convicted prisoners.
(e) To single women pregnant or with illegitimate children.
(f) To widows who shall have had an illegitimate child during marriage or widowhood.
(g) To wives or families of Militia men doing duty.
(h) To persons residing with relatives where the united income of the family is sufficient for the support of all.
(i) To persons residing in common lodging-houses.
(j) To persons living in houses or premises reported on by the local sanitary authority as being injurious to health, or which, in the opinion of the relief section from the evidence before them, is detrimental to their moral or physical well-being.

No one can complain that this first rule is not lengthy enough. It had, however, until a recent amendment another clause, to the effect that married women, living apart from their husbands, without children, or with one child, should not be eligible, except under special circumstances. This, however, has been deleted. Clause "C" might also well be deleted, we think. It is true that the number of wife desertions seems to be on the increase, and that in a proportion of these cases the wife is to blame, but it may be considered a little hard to make the rule that they are not to receive out-relief. The words "without children" should, at least, be added to this clause.

A further half-dozen rules are as follows:—

2. Outdoor relief shall only be allowed to persons who can satisfy the relief section that their destitution has not been caused by their own improvidence or intemperance, and that whilst in work they did all they could to make provision against times of sickness or want of employment.

3. Outdoor relief shall be granted for a fixed period only, which shall not in any case exceed 13 weeks, or in case of sickness 4 weeks.

4. In new cases the relief shall not be given for longer than 4 weeks, and the relieving officer shall treat the renewal, if any, as a new application.

5. Outdoor relief to sick persons shall not be renewed where the medical officer certifies that the patient cannot be efficiently treated at home.

6. Outdoor relief shall not be granted or allowed to widows who, on the death of their husbands, received money from a club, or society, or other source, and expended an extravagant amount on the funeral.

7. Outdoor relief shall be granted *on loan* where there is any probability of recovery of the relief from the person receiving it, or from any other person or persons.

Nos. 3 and 4 are especially important rules. Such restrictions to some extent prevent the idea growing in the recipient's mind that they are State pensioned for life. Of course, in really suitable cases, the relief will be renewed from time to time without lapse, but the fact that the renewal is to be treated as a new application brings the whole matter periodically freshly before the board or committee in all its bearings. Rule 7, which makes the granting of out-relief a loan in certain circumstances, is again likely to make for independence. Of course, very great discretion is here particularly needed, and the administrators must be quite certain that the recovery of such relief shall not strain the resources too severely of the recipient or "other person or persons." Another rule, to be found straying in a part of the code to which it does not seem to belong, is as follows:—"As a general rule, where there is in the family 5s. per head coming into the house from other sources, relief shall not be given."

Scale of Relief.

One of the advantages of really discriminate out-relief is that in cases where it is justified the amount granted can be really adequate for the necessities of the recipient. These model rules indicate that this thought is in the minds of their framers. A *minimum* scale of relief is fixed as follows:—

Male, head of family	3s. 0d.	per week.
Female, head of family	3s. 0d.	,,
First child	2s. 0d.	,,
Second child	1s. 6d.	,,
Third child (or more)	1s. 0d.	,, each.

In the case of widows with children:—

Widow	4s. 0d.	per week.
First child	2s. 0d.	,,
Second child	1s. 6d.	,,
Third child (or more)	1s. 0d.	,, each.

N.B.—Earnings of children or head of family to be taken into account.

Any deviation from these rules or scales shall be reported to the Board by the Chairman of the relief section, or by the relieving officer, by letter, through the Clerk to the Guardians to the next meeting of the Board.

Hints to Relieving Officers.

A code of this kind would not be complete without some instructions to relieving officers. There were originally four rules, but these have been reduced to two, and of these two, only one gives instruction not already covered by the rules. This rule is as follows:—"Visits to the relief cases must be systematic, and must take place at least once in every three months. The date of visit, and a report thereof, must be entered in the application and report book." One of the deleted rules was to the effect that there must be no permanent list of paupers, and the second that "visits have not been properly made by the relieving officer, when (1) He has seen the pauper but has not visited the home; (2), when he has visited the home but has not seen the pauper; (3), when he has neither seen the home nor the pauper, 'because he knows all the circumstances of the case'; (4), when he is satisfied with the report of any guardian upon the case, and, being thus satisfied, neither visits nor makes further inquiry."

We are giving away no secrets in reproducing these deleted rules, or their effect, because the code was discussed in public the other day at a general meeting of the Association, and the deletions made. This last rule seems to us to contain much that is good, but it was, like the others we have mentioned, deleted by vote.

Aged and Deserving Poor.

Under this head some sound experience is crystallised into printed form. It is provided that out-relief shall be granted to destitute old persons whose characters will bear the strictest investigation with respect to sobriety, morality, and general behaviour, and whose cases also comply with the following requirements:—

(a) That they have habitually led decent and deserving lives.
(b) That they have not become destitute by reason of improvidence, but adduce evidence of having exercised some degree of thrift.
(c) That if they live alone they are able to maintain themselves and their homes in a clean and respectable manner.

(d) That they are living in respectable surroundings.

(e) That if they live with relatives not able to support them, or with friends, they can show that they will be properly attended to.

The relief to be granted in these cases is to be 5s. per week each, but if the applicant lives with a married daughter, the circumstances of the family are to be taken into account. Old people are to be encouraged to live with relatives or friends where the conditions are favourable.

Widows with Dependent Children.

Those with expert knowledge of poor relief would at once turn to the section of the code which gives rules for the treatment of widows of good character with dependent children. It is provided that out-relief may be granted to such widows whose character will bear the strictest investigation, in the same manner as mentioned with regard to the aged poor. In these cases, the relief is to be granted to those who are unable to go out to work in consequence of their whole time being required in properly attending to their children; who have no adult male lodgers; whose children do not sell or beg in the streets; who attend to their children's health, education, and cleanliness; and whose habits in every way are satisfactory to the relief section and relieving officer. The relief allowed per week for the mother is to be 5s.; for the first child, 4s.; for the second child, 3s.; for the third and other children, 2s. each. All incomes are to be deducted, except 1s. for each worker, until the maximum under the following scale is reached:—

	Relief to each Person.	Maximum Relief with no earnings.	Maximum Income with one Worker.	Maximum Income with Workers.
Mother	5s.	—	—	—
First child	4s.	—	—	—
Second child	3s.	12s.	13s.	14s.
Third child	2s.	14s.	15s.	16s.
Fourth child	2s.	16s.	17s.	18s.
Fifth child	2s.	18s.	19s.	20s.
Sixth child	2s.	20s.	21s.	22s.
Seventh child	2s.	22s.	23s.	24s.
Eighth child	2s.	24s.	25s.	26s.
Ninth child	2s.	26s.	27s.	28s.
Tenth child	2s.	28s.	29s.	30s.

These rules are also to apply to married women (with children) whose husbands are permanently incapacitated by lunacy, and are inmates of a lunatic asylum, or are in a workhouse hospital.

These model rules, comprehensive and valuable, should be carefully studied by every Poor Law administrator. When they come before boards of guardians it will be found that there are some slight alterations which we have not been able to give, but these are confined to the wording of the rules only, to alterations in the letter, not the spirit. Other Poor Law associations might do well to frame similar codes.

CAMBERWELL POOR LAW OFFICERS.

THE officers of the Camberwell Board of Guardians spent a very happy time the other evening, on the occasion of their annual dinner, which took place at the Horns Hotel, Kennington, where an excellent repast was provided. The chair was occupied by the Clerk to the Guardians (Mr. C. S. Stevens), supported by the Chairman of the Board (Mr. A. Foster), Chief Clerk Lambeth Police Court (Mr. C. Temple Martin), Medical Officer of Camberwell Infirmary (Dr. W. C. J. Keats), Dr. Serjeant, and others. The Chairman proposed the toast, "The Camberwell Board of Guardians," and Mr. Foster, in response, alluded to the coming opening of the new board room and offices, and also to the increase in the rates that had recently taken place. It might not be generally known, he said, that the new offices had really not cost the present ratepayers anything, as the building had been erected from Camberwell's portion of the proceeds of the sale of the South Metropolitan District Schools. Other toasts followed.

POVERTY IN POPLAR.

An Inquiry into the Causes that Have Led to High Rates in Poplar Shows that It is Largely To Be Accounted for By Expenditure on the Relief of Distress. How the Problem of Poverty Has Been Attacked. Enormous and Varied Work Accomplished. Dividing the Men Amongst the Authorities. A Plea for Unification of the Rates.

ONE of the causes making for Poplar's alarmingly high rates is that during the past winter a new line of departure was taken in dealing with the unemployed. Hitherto the Poplar Borough Council has put men on what is called "the three days' system." That meant that an unemployed man was given periodically three days' work—generally sweeping the roads. When this was accomplished, he was paid for the work, and was told to wait until his turn came again. This was sometimes several weeks. Nothing he could do would hasten matters, and he soon found out that, however well, or however badly he did his three days' work, the result was just same. This, it was felt, was sapping the independence and the stamina of the best men.

So the Borough Council decided to employ the men their whole time, and under conditions similar to that of ordinary employment. It is now nearly six months since it was determined to push forward as many necessary works as possible, for the purpose of relieving the great distress prevalent in the borough through scarcity of work. The men were put upon all kinds of work—building, repairing, paving, drainage, painting, &c., and its extent is shown by the fact that the estimated cost has exceeded £65,000. The wages paid to 24th March aggregated the sum of £16,845, and 1,350 men had been put to work. Deducting a sum of £1,347 paid to the Council's regular employees, this leaves a balance of £15,497 as having been paid to the 1,350 unemployed. This equals an average of £11 9s. 7d. per head.

A Good Report.

Instead of the sporadic three days, the length of time employment was given varied from a minimum of three weeks to eighteen weeks, and some of the men who had been found work for the longer period are still employed.

And how have these men, many of whom are regarded by ignorant and unsympathetic people as wasters, behaved themselves? The Borough Surveyor and Works Manager to the Council (Mr. Harley Heckford, Asso.M.Inst.C.E.) reported on the 4th of this month, that—

> I have no hesitation in saying that, taken on the whole, the men have worked well, and, although of course they have not been quite equal to picked men, still by far and away better value has been received this season than was the case when the system of giving three days' work to each man was followed. In my opinion, the extra cost of the labour, taken all round, has not been more than fifteen per cent., whereas the increased cost of the three days' system of former years was not far short of 100 per cent.

This must be considered highly satisfactory. An extra cost of 15 per cent. for work done by "unemployed" is very low. The estimates were not belied. In those works completed, for which a total estimate of £26,573 was given, the ascertained actual cost was £26,384, and the Borough Surveyor is of the opinion that, taken together, the estimates will not be exceeded where the costs have not yet been ascertained or in the works not yet completed.

Another remarkable fact is that no allowance was made in these estimates for the works being carried out by unemployed labour. For a moment this does not seem reconcilable with the statement that the labour cost 15 per cent. more than it would have done had it been picked in the ordinary fashion. But, fortunately, this increase was compensated for by the purchase of materials at the lowest rate yet paid, and the estimates were based upon previous prices.

The Borough Surveyor has prepared a long list of works carried out, and a careful perusal of this shows that all works undertaken were either absolutely necessary or advisable, and although the expenditure of such a considerable capital sum as that given necessarily means that a largely increased amount must be found for the repayment of interest and capital—amounting probably to £4,120 per annum—the works have been of such a nature that it is estimated the annual saving effected in maintenance will quite equal that sum.

The serious question presents itself here as to what will be done for the unemployed by the Borough Council next winter. Public works have been expedited, and there will be little or nothing next winter that the unemployed can do. Riots are predicted in some quarters.

The Guardians and the Unemployable.

There is one other important aspect of this work. There was the unemployable as well as the unemployed to deal with. It is officially reported that there were very few cases in which the men were unsteady or lazy, but a number have been unable to cope with the work successfully, although in every way willing to do their best. Where possible, lighter work of some kind, or a watchman's job was found for them, or, failing this, they were, after a fair trial, paid off before the completion of the particular work. This has thrown a great deal of extra work upon the Guardians, and the number relieved mounted rapidly from 3,944 to 7,012. The high-water mark was reached in the twelfth week of the Christmas quarter, when the number reached 8,599. These numbers in each case include women and children. The average amount of relief given to each man and his wife was 5s. to 5s. 3d. The result of this was that there was a deficit of £13,000 on the half-year's working. The total poor rate in Poplar is 2s. 5¼d., which includes the demand for the Metropolitan Asylums Board and the Poplar and Stepney Sick Asylums Board.

Work Found in Other Directions.

To give a balanced idea of what has been done for the unemployed as a whole in Poplar during the past winter, it is necessary to refer to the specific work of the Central Unemployed Committee and of the Poplar Joint Committee on the Unemployed, appointed in accordance with Mr. Walter Long's scheme, and consisting in the case of the latter body, chiefly of councillors and guardians, but also containing a representative from each of the following bodies:—The Free Church Council, Salvation Army, Poplar Trades and Labour Council, and the Charity Organisation Society. The Rector of Poplar (Rev. H. Mosley) and R.C. Priest-in-Charge (Rev. T. Doyle) were also appointed upon the Joint Committee. A rota of members of this committee met daily to interview applicants whose cases had been investigated, and who came within the scope of the scheme. Thirty-nine meetings of this sub-committee were held. Mr. A. W. Yeo, J.P., presided over the meetings of the committee and the sub-committees. Messrs. George Lansbury and Yeo were appointed on the Central Committee as representatives of the Joint Committee. The sub-committee selected the men to the work put in hand by the Borough Council. The Central Unemployed Committee also put in hand trenching work on the site of Long Grove Asylum, near Epsom, clearing the boating lake at Victoria Park, and work at Green Park and the Garden City. It also arranged for the accommodation of men at Hollesley Bay Farm Colony—which

establishment was described and illustrated in our last issue—and at Hadleigh Farm Colony. A proportion of the places on these works was allotted to the Poplar Joint Committee. Trenching work, &c., was also put in hand by the Poplar Guardians at Hutton Schools Farm, Shenfield, for men selected by the Joint Committee. A grant of £520 was made by the Central Committee of the London Unemployed Fund in aid of works put in hand by the Poplar Borough Council.

Sifting the Applicants.

Very instructive are the figures which show how the cases were disposed of. They are a rough guide as to the character of the flotsam and jetsam, which go to form the ranks of the unemployed, and show—though not in the case of the single men—how many are really employable. Here are the figures:—

Applications registered (exclusive of second applications): Poplar, 1,018; Bromley, 1,646; Bow, 796. Total, 3,460. Of whom there were:—

Invited to attend before committee		2,346
Single men not dealt with		414
Chronics and ineligibles not submitted to committee		450
Applications withdrawn, found work, etc.		170
Verified, awaiting sub-committee		54
Awaiting verification		26
		3,460
Employed by Borough Surveyor		1,350
" Central Committee:—		
Long Grove	58	
Victoria Park	40	
Hadleigh	25	
Hollesley Bay	10	
	—	133
" Poplar Guardians (Shenfield)		21
		1,504

How the Men were Paid.

It will thus be seen that nearly half of the total number of applicants were put into employment, which is a very much larger proportion than that obtaining in many other districts. The wages paid were not such as to tempt men to leave their regular employment. At Long Grove and Victoria Park the men were paid in the ordinary way, and at the rate of 7d. per hour, for 44 hours per week. This latterly has been reduced to 40 hours per week. In the case of Long Grove 4d. per day (workmen's train fares from Waterloo Station) were deducted. But at Hadleigh and Hollesley Bay the men are not paid direct wages. Board and lodging and 6d. per week per man is given, and the wife is allowed 10s., 2s. for the first child, 1s. 6d. for the second, and 1s. each for other children. This sum is paid to the wife, and not to the husband.

The following is an interesting little table which shows what became of 309 men who were selected by the Joint Committee as suitable for employment by the Central Committee, but to whom no work was given:—

Still unemployed	167
Found temporary work	64
Found permanent work	2
Removed, no trace	28
Removed to workhouse	1
Sent to Laindon Farm Colony by Guardians	3
Emigrated to Canada	1
No information	40
	306

Consensus as to Conduct.

We have already spoken of the conduct and ability of the men employed by the Borough Council. The following replies to inquiries from the various centres where the men are employed are highly satisfactory:—

SHENFIELD (21 Men). (Employed by Poplar Guardians).—Mr. J. Pyner, Foreman, writes:—"The conduct of the men you sent me was quiet and honest, and although the work was rather strange to them at first, after a week or two they got used to the tools, and the work was more satisfactory. Every man was fully master of his tools when he left, and fit for any farm labour."

VICTORIA PARK (40 Men). Mr. J. Beckett, Foreman, writes:—"Taking into consideration the work they had to do, not only Poplar men, but the men from other boroughs gave me the greatest satisfaction, being good workers and timekeepers."

LONG GROVE (58 Men).—The Foreman writes:—"The Poplar men worked satisfactorily."

HADLEIGH (25 Men).—"There were no complaints."—Detailed report will be submitted later.

HOLLESLEY BAY (10 Men). Mr. W. B. Dean, Superintendent, writes:—"I am glad to speak in the highest terms of them all. Their conduct has been exemplary. Their work cheerfully and efficiently done."

The men, in a word, show their gratitude in this practical way for the efforts made to give them opportunities to employ themselves, and to earn for themselves that which would not be denied to animals. One fact emerges from all this, and it is that unless the unification of the rates is effected, and the burden of the poor raised from the shoulders least able to bear it, London will be threatened by a very serious danger.

POOR LAW NOTES.

Poor Law Reform.

IN an article, entitled "Poor Law Trend," in the first of the enlarged series of the Municipal Journal, we pointed out that the modern workhouse is unsuited to the purpose which it ought to serve. It was shown how it was unsuited to the old folks who largely fill it; to the able-bodied—not a large class—to the feeble-minded and epileptic; to the children, &c. Some suggestions were given as to how these various classes should be dealt with. An interesting little volume, just issued under the title, "Towards a Social Policy: or Suggestions for Constructive Reform," takes up a very strong stand for the abolition of the workhouse in the directions we indicated. It points out that the name workhouse, together with the workhouse stigma, and the "whole stupid and inhuman barrack system," should disappear. It suggests (1), the Poor Law child should be cared for in cottage homes, and taught in the ordinary schools; (2), the Poor Law sick wards and infirmaries should be freed from the pauper connection, and ultimately co-ordinated with the hospitals; (3), the epileptic and imbeciles, who are at present ordinarily herded with the other inmates, should be treated in special institutions; (4), for the aged and infirm, who cannot be tended in their own homes we should offer a more rational and humane existence than the cheerless *régime* of the workhouse; while (5), every effort should be made, *e.g.*, by the extension of district nursing, to care for the sick and aged in their own homes.

❦ ❦ ❦

A Change of Authorities Suggested.

WITH the exception of No. 5, our readers will remember that these were precisely the classes, together with others, that we dealt with. In regard to the extension of district nursing, extreme care should be taken that the homes of the sick are suitable for their retention. It is suggested that the authorities to be charged with these duties should be the municipality and the county council, with power to devolve local management upon representatives of friendly societies, trade unions, and kindred agencies, and, in the case of the counties, of the smaller local bodies. Such a change, it is pointed out, would have two chief merits. It would simplify and tend to equalise the burden of rates, and it would possess the immense advantage of giving a fresh start without the "hampering and hidebound traditions imposed upon the Poor Law guardians, who, though elected representatives, have never been free agents." Of course, this is over again the question of the transference of the powers of Boards of Guardians.

❦ ❦ ❦

Free Agents.

WE do not quite understand what is meant by guardians not being free agents. Surely the writer would not make the obtaining of assistance from the rates an easier thing than it is now. What is wanted are not easier modes of obtaining relief, but more adequate and reasonable methods of dealing with those whom it is necessary to take in hand.

A Word of Warning.

ON the question of out-relief, the writer is unquestionably out of his depths. He writes:—"The truth is that the workhouse quite fails to meet the case; it is nothing but a hospital and asylum, while out-relief is in the main confined to widows and deserted wives and their children and the aged." Would he, then, extend it to all classes? An article in another part of this issue gives reasons why out-relief should be rather curtailed than extended. By all means, substitute for the present obsolete system a worthy national system of dealing with the problems of want and incapacity in a comprehensive way; but this will not have to be in the direction of tempting the poor to throw themselves upon the ratepayers.

❦ ❦ ❦

Medical Relief on Loan.

THE Chelsea Board of Guardians has decided that in future all medical relief shall be given on loan. Little by little the feeling has been growing on this Board, as indeed on many others, that the ratepayers are being cheated by having to pay for the medical attendance of those who are quite able to pay for themselves. We use the word "cheated"; but the practice has continued so long in many unions that a great number of the parishioners regard such attendance as an inalienable right. A few days ago, we read of a case in which a smartly-dressed girl had gone to the guardians' offices and asked for an order for medical attendance with the greatest aplomb. It never seemed to occur to her that there should be any hesitation about such a thing. As a child, it appeared, she had seen her parents go for the parish doctor. By putting medical relief on loan, the intention is not that the needy should be staved off—for discriminating officers soon see who are needy—but that those who are able to pay should pay. It was mentioned by Dr. Woolliscroft, in the discussion which took place at the last meeting of the Chelsea Guardians, when this new step was decided upon, that there were "hundreds who used the three parish medical officers wholly and solely for the purposes of cheap consultation." The assertion seemed to be doubted by one or two members of the Board, but our experience of the matter is that this statement is by no means exaggerated. This is a matter which other boards of guardians might do well to pay attention to. How the loan system has worked in the Bethnal Green Union was shown in our columns a few weeks ago.

❦ ❦ ❦

Relief Under False Pretences.

THE care with which out-relief should be administered is once more shown in the prosecution this week of a woman, aged sixty-four, by the Stoke-on-Trent Board of Guardians. The defendant's husband, it appeared, met with a colliery accident, in consequence of which he was totally incapacitated. The woman stated that her husband could not obtain compensation, as he was seeking work when the accident occurred. She was, consequently, granted out-relief. Subsequently, it was discovered that the man was receiving 12s. 6d. a week from the colliery company in question. The accused, who offered no defence, was committed to prison for seven days without hard labour.

❦ ❦ ❦

Fifty Years a Guardian.

THE Chairman of the Darlington Board of Guardians (Alderman John Feetham) can boast—if he felt so inclined—of entering upon his fiftieth year as a member of that Board. The out-relief bill of that body 50 years ago was £63, against £80 now, but if the amount were in the same proportion to the population now as it was half a century ago, it would be £250. The real increase, it appears, has been in the workhouse and nursing staff, and on everything calculated to add to the comfort of the inmates. A glance through the Local Government Board reports shows that roughly this has everywhere been the case. During 50 years the number of paupers has diminished in proportion to the population, but the expenditure increased.

CARRON

STABLE FITTINGS.

Their selection includes Troughs, Mangers, Hay Racks, Boilers, Box Divisions and Doors, Corn Bins, Drain Grates, Air Gratings, Windows, &c., &c.

Carron Company also Manufacture Cow House and Piggery Fittings.

Drawings and Estimates sent on request.

Write for Stable Fittings Catalogue No. 32.

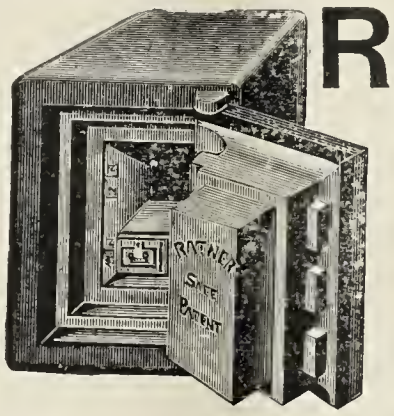
CARRON COMPANY.
Incorporated by Royal Charter 1773.
Works: **CARRON, STIRLINGSHIRE, N.B.**

Agencies and Showrooms:
LONDON (City)—15, Upper Thames St., E.C.; LONDON (West End)—23, Princes St., Cavendish Sq., W.; LIVERPOOL—30, Red Cross St.; MANCHESTER—24, Brazenose St.; BRISTOL—10, Victoria St.; NEWCASTLE-ON-TYNE—13, Prudhoe St.; GLASGOW—125, Buchanan St.; BIRMINGHAM—Guildhall Buildings, Stephenson St.; DUBLIN—44, Grafton St.; SOUTHAMPTON—Town Quay (The Old French Prison).

DIALITE

THE STANDARD CABLE FOR ALL PURPOSES.

THE ST. HELENS CABLE CO., Ltd.,
WARRINGTON.



RATNER

Twelve Corner Bent Solid Steel

SAFES,

STRONG ROOM DOORS,

STEEL STRONG ROOMS, SAFE DEPOSITS,

As supplied to the following, among other Public Bodies:—

ADMIRALTY. 500 Safes.
BOARD OF TRADE.
H.M. BOARD OF WORKS.
H.M. POST OFFICES.
WAR OFFICE. 300 Safes.
DUBLIN CASTLE.
INDIA OFFICE.
CROWN AGENT FOR THE COLONIES.

ROTHERHITHE TOWN HALL.
TOWN HALL, BELFAST.
CORK HARBOUR COMMISSIONER.
CORK COURT HOUSE, CORK.
LONDON COUNTY COUNCIL.
GUARDIANS OF THE POPLAR UNION. Three large Registrar Safes.
GUARDIANS OF THE WIGAN UNION.
GUARDIANS OF BISHOP AUCKLAND UNION.
GUARDIANS OF PONTEFRACT UNION.
GUARDIANS OF THE WESTMINSTER UNION.
FARNBOROUGH TOWN HALL.
BEXHILL URBAN DISTRICT COUNCIL.
HAMPSTEAD BOROUGH COUNCIL.
RADSTOCK U.D. COUNCIL.
BLACKPOOL TOWN HALL.
GREAT YELDHAM PARISH COUNCIL.
MARKET HARBOROUGH U.D.C.
DEPTFORD BOROUGH COUNCIL.
PADDINGTON VESTRY.
ROTHWELL U.D.C.
PENGE DISTRICT COUNCIL.
WYNDIGATE DISTRICT COUNCIL.
BROMLEY URBAN DISTRICT COUNCIL.

The RATNER SAFE CO., Ltd., have just secured an order for a Drill-proof Strong Room for the Premier Diamond Mines of Johannesburg (a company which, with a capital of £85,000, made last year a profit of £670,000, and expects this year to make £2,000,000). It will be the strongest room ever constructed, and the order was secured after severe competition not only with the other English makers, but with American makers as well.

Catalogues and all particulars free on application to

51, MOORGATE STREET, E.C.

ELECTRICITY SUPPLY.

How Bad Trade and General Depression Affect the Demand for Electricity. The Art of Effective Electric Lighting, and Popular Ignorance. Differentiating Between Different Classes of Consumers and Reasons for Believing it a Retrograde Movement. Swansea and Lessons from its Last Accounts.

THE last published accounts of the Swansea municipal electrical undertaking cover the period to the end of March, 1904. In the financial year ended on that date the units sold to private consumers, for motive power, and for public lighting, show a gradual fall in amount, the actual figures being, the first and largest, 521,977 units for private lighting; secondly, 210,984 units for private motive power; and lastly, and the least, 138,594 units for public lighting. The maximum demanded supply was 625 kilowatts, so the load-factor reached a higher figure than many stations without a traction load. The public lighting comprised 54 arc lamps, which brought in £1,399, and cost £250 for maintenance and repairs.

The revenue derived from sales of electricity, &c., amounted to	£10,989
And the working expenditure to	5,194
Leaving a gross profit of	£5,795
To this sum was added a balance from the previous account of	1,810
Making a total of	£7,605
Out of this sum the following requirements were met :—	
Interest on mortgage debt £3,902	
Sinking fund and repayments ... 2,959	
Total of capital charges	6,861
Leaving a balance of	£744

❦ ❦ ❦

Expenditure on Capital Account.

IN the revenue as given above, a sum of £100, required for bad debts, is included. This has been deducted in the receipts in the next statement. The balance shown is obtained by treating as an item of receipt in the nett revenue account the balance brought forward from the previous year. If this be excluded, it will be seen that the year's working resulted in a deficiency, which, no doubt, is largely due to a sum of £12,102 having been expended during the year on capital account, and if, as usual, this was unremunerative, the revenue to be obtained from such extensions will now be making itself felt, and the set-back will only be a temporary one.

Swansea.	Units.	Yielding	Per unit.
Private consumers took ...	732,961	£9,490 =	3·107d
Public lamps consumed ...	138,594	1,399 =	2·423d.
Total	871,555	£10,889 =	2·999d.
Units used on works... ...	76,162		
Total accounted for	947,717		
Utilised on distribution ...	69,354		
Total units generated ...	1,017,071		

(The maximum load was 625 k.w., equal to a load-factor of 15·92 per cent.

❦ ❦ ❦

Appropriation and Gross Receipts.

THE amount received was taken up and appropriated thus:—

	Amount.	Per unit.
Works' costs	£3,545 =	·976d.
Rates, taxes, and management.	1,299 =	·358d.
Total cost	£4,844 =	1·334d.
Public lamp maintenance ...	250 =	·069d.
Gross cost	£5,094 =	1·403d.
Interest charges	3,902 =	1·074d. } 1·889d.
Sinking fund charges	2,959 =	·815d. }
Total actual cost of units sold..	£11,955 =	3·292d.
Less deficiency on year's working	1,066 =	·293d.
Gross receipts in year ...	£10,889 =	2·999d.

The capital account at the end of March, 1904, included the following items:—

Lands	£3,926
Buildings	20,576
Machinery.	34,495
Mains and services	29,788
Accumulators	1,603
Transformers and motors	1,755
Meters	3,751
Various	14,782
Total on capital account	£110,676

❦ ❦ ❦

Depression and its Results.

BAD trade and general depression in business has made itself felt keenly during the past year in municipal electrical circles. When profits are small, economies are practised in every department by the shopkeeper and tradesman, and one of the first things he looks in to is his lighting bill. In consequence, many premises already connected are found to be reducing their consumption, either by the more careful distribution and use of light, or by the adoption of more efficient lamps. Again, it is becoming increasingly difficult to get new consumers. It must always be remembered that the large business premises are the first to come on the mains, and they take supply irrespective of the price charged. Next come those who appreciate the advantages of electricity supply, and can afford to pay a greater price for their lighting, in return for the extra convenience, and cleanliness of the incandescent. After that—and we come to the bulk of the population of our large towns and county boroughs—are those to whom price is, if not everything, at least a very great deal. They feel the pinch of having to provide wiring and fittings more than the others, and to meet their requirements the various schemes of free and assisted wiring have been devised. But these have only partially solved the difficulty, and the consequence is that, although the past year has shown a steady growth, it is by no means a rapid one. The favourable feature is that while the maximum load has often but slightly increased, the load-factor is rising, and the day-load in most undertakings is markedly progressive. This is one of the most hopeful signs, for it is enabling the standing charges to be at least partially borne by a demand other than that which occurs on the evening peak, caused by lighting, and, in consequence of the larger turnover, points the way to a general reduction in the charges for private consumption.

❦ ❦ ❦

How it May be Met.

WE are of opinion, therefore, that the current year will be marked by wholesale reductions in price, and that the power companies will find that they have on one hand stimulated the desire to lower the average selling price, while on the other the healthy though keen competition with gas has taught the electricity works manager how to make the most of his resources by consistently advising consumers to use lamps of good efficiency, and to arrange them so as to give the best lighting effect. It is surprising how slow the public are to pick up the elements of the art of effective electric lighting. They seem to have little difficulty in understanding the vagaries of gas, but this is perhaps due to the guidance of the previous generation, and by parity of reasoning the next age will be one in which illumination is more thoroughly understood and its proper treatment a matter of every-day knowledge. The new metallic filament, and other high efficiency lamps, will come to the aid of the electrical engineer, as well as the consumer; higher load-factors and day supply will enable the standing charges of a works to be more uniformly distributed; economies in the boiler-house and engine-room will lead—and are leading—to what are almost bed-rock works costs, and, as a result, the prices charged will be brought down with a run.

❦ ❦ ❦

Examples of How To Do and How Not To Do It.

THAT in these early months of the year there is good reason to consider this to be true does not require any elaborate analysis of the causes at work; but the effects are already beginning to show themselves. The Hammersmith Borough Council is meeting the threatened opposition to the undertaking by the power companies by knocking off the initial, or first-hour, rate of 6d. on its present sliding-scale, and, by leaving the subsequent rate of 3d. untouched, is converting the Wright system into a uniform tariff. Hampstead, Islington, and the other metropolitan boroughs may be expected to follow suit, for rates such as 7d. and 4d. cannot much longer hold the field. The effect of a 3d. all-round rate will react on the companies, which have always tacitly ignored the "undue preference" section of the Electric Lighting Act, and taken business at any figure which they thought would be profitable, having regard to individual circumstances. As a result of this policy, the City companies boast of 20,000 h.-p. of motors on their mains, and well they might. To have gained such an adjunct to their lighting business has meant special terms in all cases where they were justified in giving them.

❦ ❦ ❦

Meeting and Overcoming Difficulties.

IN the face of these facts, a suggestion such as now emanates from Dundee, to still more closely differentiate between different classes of consumers, must be regarded as a retrograde step. Business push must not be held back by too much reliance upon theoretical considerations, nor can a curve—however carefully calculated by abstruse mathematical ability—compensate for the simplicity beloved of the dealers who sell for pounds, shillings and pence. It is quite different with a proposal like that which Southampton has put forward to catch the big shops and drapers who use gas in the body of the shop and electric light in the windows and outside, namely, to charge a lower rate per unit all round (such as 4d., with 3d. after the first 50 units per quarter) for back shop lighting, where not less than a fixed number of lights, say ten, are installed, at a distance of not less than nine feet inside the window. Here the concession is made to all comers, at a fixed rate, and partakes more of the nature of the reductions so commonly made to theatres, churches, radiators, and motors.

❦ ❦ ❦

"Units Generated."

ANOTHER very important matter is gaining attention slowly. That is the determination of the quantity of electricity generated. Here is a business which by its very nature involves serious losses between the points of production and consumption, and possesses the advantage of a simple and accurate system of measurement. In face of this, the newly-elected member of a committee can be excused his surprise when he learns that it is by no means as yet the rule for the "units generated" to be metered. They are frequently obtained from the units sold by the easy but unreliable method of adding to the sales a percentage which will show the losses to be about the same in this one case as they are in others with which it may be compared. This estimation is altogether valueless, and leaves the station manager in the dark as to the losses on the distribution system. In the every-day business world the articles manufactured, wrought, or mined (as the

case may be) are measured, weighed, or checked at the point of production, and again on delivery to the consumer either by or for him. Coal, drapery goods, tobacco, oils, and so on are all treated in this way, and woe be to the shop-manager who fails to account for the quantity given into his charge to retail. In an electricity works, the station superintendent produces a certain number of units at a cost which is brought down to the minimum his skill and attention can attain; and this electricity is, to all intents and purposes, handed over to the mains superintendent to be distributed to the customers. There is every advantage to be gained by a knowledge of the losses (which aggregate some twenty to thirty per cent. of the whole output), and the means of knowing are available. Why, then, do not electrical engineers obtain these figures? Is it that they are afraid of the object-lesson they would afford? It is at least open to question if the setting down of guessed-at amounts in the Board of Trade form is a wiser policy than to set about their evaluation, and let year by year show an improvement. As it is, the figures "units generated" serve no good purpose.

The Barrow-in-Furness Corporation, which obtained Parliamentary powers last year to construct a bridge over Walney Channel, is making preparations to commence the work. The bridge will be about 1,123 feet long and 50 feet wide, and will consist of eight fixed girder spans and one opening span on cylinder foundations, the opening to be 120 feet. It is expected that the bridge, which will be chiefly constructed of steel, will take from two to three years to build. Sir Benjamin Baker is the designer.

MOTOR-CARS AND WOOD PAVEMENT.

By those responsible for the maintenance of public roads, motor-cars are looked upon with anything but favour. For some years past, municipal engineers have noted that the disintegration of macadam roads has each year become more rapid under the increased speed attained.

Mr. Bradley, the Westminster City Engineer, now draws attention in a report to the Council to the deteriorating effect also produced on wood-paved streets. "We have been watching the effect on creosoted wood blocks," he said to a representative this week, "for about twelve months. The rubber tyres seem to suck the creosote out, and then scatter it in the form of dust."

WM. GRIFFITHS & Co., Ltd.,
35 to 39, HAMILTON HOUSE, BISHOPSGATE STREET WITHOUT,
LONDON, E.C.,
CONTRACTORS FOR CONSTRUCTION OF TRAMWAYS
AND MUNICIPAL WORK OF ALL DESCRIPTIONS.
QUARRY OWNERS AND STONE MERCHANTS.
LARGE STOCKS ON HAND OF
PITCHINGS, KERB, MACADAM, YORK STONE, JARRAH TIMBER, &C.
TELEGRAPHIC ADDRESS—"GRIFFITHS, STONE, LONDON." TELEPHONES—Nos. 2868 and 2869, LONDON WALL.

In Use in over 100 CENTRAL and POWER STATIONS,
AND MANY THOUSAND PRIVATE INSTALLATIONS.
E. P. S. STORAGE BATTERIES
ARE MANUFACTURED ONLY BY THE
ELECTRICAL POWER STORAGE CO.,
4, GREAT WINCHESTER ST., LONDON, E.C.
Telegrams—"STORAGE," LONDON. Telephone—No. 1253, London Wall.

A. & F. MANUELLE
GRANITE SETTS.
LARGE STOCKS OF ALL SIZES FOR IMMEDIATE DELIVERY.
Also Large Stocks of ***CURBS, CHANNELS, MACADAM, SIFTINGS, BEDSTONES, TEMPLATES,*** *&c.*
Building Work of every description from Architects' and Engineers' Designs.
Chief Office: 57, GRACECHURCH ST., LONDON, E.C.
QUARRIES:—GUERNSEY, ABERDEEN, LEICESTER, IRELAND, NORWAY, & SWEDEN.
Telegraphic Address—"FELDSPAR, LONDON." Telephone Nos. 274, 296 AVENUE.

TRAMWAY TOPICS.

Some Strong Remarks Anent Municipal Trams by a Judge, and a Reply. Reasons Why the Huddersfield Tramways Show a Deficit. A Chapter of Accidents and Adverse Local Conditions. The System Described. Nothing to Fear in the Future. Bournemouth and Poole Extension.

THE fact that there is an adverse balance of £500 on last year's working of the Huddersfield Corporation Tramways will possibly be used by the enemies of municipal activity as an argument in favour of their attitude. They will read this week that the tramways, with a capital of £414,667 last year, brought in a revenue of £69,938; that working expenses were £35,084, and the gross surplus £34,853; that interest and redemption took £23,343, making a surplus of £11,510, but that the depreciation was £12,013 at 3 per cent., which leaves the adverse balance already mentioned. An unbiased inquirer, however, will want to know what are the local and accidental circumstances. Here lies the explanation.

❦ ❦ ❦

The Explanation.

THE Corporation has been severely handicapped in several ways. Huddersfield is a town of stiff gradients, so much so that horse-power was soon found to be out of the question. The best mechanical haulage to be found at the time was steam, although probably not the safest. In 1883 an engine got beyond control, and overturned a car, for which nearly £10,000 damages had to be paid. This seriously crippled the undertaking at the start. It was recovering from this mishap when it was found that the lines constructed for horse traction had to be reconstructed for mechanical haulage, so that there was another heavy drain on the revenue account. In 1891 a boiler burst, and £2,000 had to come out of revenue for compensation. Notwithstanding this series of misfortunes, the Corporation stuck boldly to its enterprise, and the ratepayers have ungrudgingly made up the deficits.

❦ ❦ ❦

The System and Its Novelties.

A FEW details as to the size and nature of the system should be of interest. The Huddersfield Corporation was the first local authority in England to obtain Parliamentary powers to work its own tramways. These powers were obtained in an Improvement Act of 1880, and extended by an Act two years later. By a subsequent Act, the Corporation made its power absolute without the licence of the Board of Trade, and it now works the tramways in the district of the Linthwaite Urban Council under agreement. The total length open for traffic is thirty-five miles. The cars carry letter-boxes on each car. The boxes are left at the tramways office by the conductor at the end of each hour. The post office authorities pay £300 a year to the Corporation for the use of the boxes and for conveying postmen and telegraph messengers when on duty. The boxes are cleared by the post office officials every hour from 8.30 a.m. to 10.30 p.m., and again at 11 p.m. Letter-boxes are now carried on Sundays, there being one collection, viz., 7 p.m. The average number of letters placed in the boxes per week is 10,218, and a great benefit is conferred upon the community, especially in the outlying districts, where letters could not be posted after 6 or 7 p.m. A letter may be posted without charge whenever the tramcar is found at rest. If the car is stopped for this purpose a penny must be paid to the conductor.

❦ ❦ ❦

A Big Undertaking.

THE rolling stock consists of seventy cars, and the number of miles run last year was 1,632,000, an increase of 413,461 on the previous year, and the number of passengers carried 11,899,287, an increase of 2,161,074. This means that every inhabitant of Huddersfield—man, woman, and child—makes 119 (based on 100,000) journeys every year on the cars. Waiting-rooms are provided for passengers, a central one (to which a ladies' lavatory is attached), and twenty-eight others are provided at various points on the route. The total number of employees in the department, exclusive of the office staff, is 262. A system of parcel depots has been established all over the borough, and the parcels traffic has very largely developed until it brings in revenue close upon four figures. The haulage of coal over the lines is now being undertaken, and contracts entered into. The drivers are paid 27s. and 28s. per week and the conductors 22s. This gives 6¾d. and 7d. per hour for drivers and 5½d. per hour for conductors.

❦ ❦ ❦

No Reason for Alarm.

BARRING accidents, there is no reason why in a very short time the undertaking, besides paying the public as it always has done in convenience, should not be making a profit. The deficiences seem to be approaching vanishing point. For the year ending March 31, 1901, there was a deficiency of £10,100, with a total income of £37,498, and expenditure £47,598; in 1902 the deficiency was £9,145, with a total income of £49,118, and expenditure £58,263 (this later sum included £8,334 for depreciation); in 1904 the deficiency was £4,739, with a total income of £65,675, and expenditure £70,714. The £500 deficiency now recorded is nothing at which to be alarmed. It is proposed to lay a rate of 3 1-16d. in the pound to wipe off this and a deficiency brought forward from the previous year.

❦ ❦ ❦

A Judge on Municipal Tramcars.

"THERE seems to be an impression that owners and drivers of tramcars have some peculiar monopoly of the roads." These were the remarks of his Honour Judge O'Connor in summing up a case this week at the Sunderland County Court, in which three claims were made against the Sunderland Corporation, arising out of a tramway collision on the night of November 1 last. It appears a cart used by the local branch of the Society for the Prevention of Cruelty to Animals, for the carriage of fat cattle from the goods station, was run into on that night by a municipal tramcar, with the result that the cart was wrecked, the horse damaged, and a man named George Thompson, who was in the cart, injured. The defence was that the collision was due to the negligence of the driver of the cart. His Honour found for the plaintiffs in each case—£28 for the officials of the Society; £10 for Liddell, who owned the horse; and £5 for Thompson. His Honour made a number of other perfectly obvious remarks. He said, as a matter of fact, the roads were open to all the King's subjects, whether walking or driving. The fact that a corporation obtained certain powers to put down metals over which it had running powers did not dispose of the rights of the King's subjects in general. Of course not, but why this outburst against the humble car, crippled and cramped by its iron rails? If the remarks had been made against the drivers of motor-cars, many of whom certainly seem under the impression that they have a peculiar monopoly of the roads, they would have had more point.

❦ ❦ ❦

Bournemouth's Extended System.

THE final steps are being taken to complete the acquirement by the Bournemouth Corporation of the electric tramway system of the Poole and District Electric Traction Company. The sum of £112,000 was settled by arbitration as the purchase price of the company's undertaking. Delay in the settlement was occasioned by the fact that the award of the umpire, Mr. Justice Lawrence, did not apportion the sum due for the existing tramway, which sum is to be paid by the local authorities of Poole and Branksome, through whose districts the tramway runs, and who in turn will lease the line back to Bournemouth, to be worked in conjunction with the Corporation system. The umpire has now apportioned the sum of £108,000 for the company's line, £4,000 being in respect of other rights acquired. Of the first-named sum, £8,000 is for rolling stock, and will be paid by Bournemouth, and Poole and Branksome, who are responsible for the balance—£100,000—and have each taken steps to raise a loan of £50,000. Meanwhile, the Bournemouth tram lines have been extended and connected with the Poole system.

DICK, KERR & Co., LIMITED.

Manufacturers of all kinds of Electrical Machinery.

Contractors for Municipal Lighting and Tramway Schemes.

HEAD OFFICE: Abchurch Yard, Cannon Street, London, E.C.

WORKS: Preston, Lancs., and Kilmarnock, N.B.

"MUNICIPAL JOURNAL" ANALYSES OF ELECTRIC TRAMWAY ACCOUNTS.

1903-4.

	Population.	Date tramways started.	Length of street route. Miles.	Gauge. Ft. In.	Capital outlay. £	Number of passengers carried.	Number of car miles run.	Total receipts. £	Working expenses. £	Percentage of expenses to rec'pts %	Nett receipts. £	Percentage of nett receipts to capital. Per cent.	Interest charges and lease rentals. £	Repayment charges. £	Surplus (+) or loss (−). £	Provision for depreciation and reserve. £	Contribution to rate fund.	Traffic receipts per car mile. d.	Expenses per car mile. d.	Average fare per passenger. d.	Electricity supplied by	Number of B.O.T. units used.	Price paid or cost of electricity per unit. d.
Aberdeen ..	165,000	Aug., 1898	14·14	4 8½	314,407	15,538,167	1,379,723	64,071	37,054	58	27,017	8·59	10,389	2,397	+14,231	14,231	nil	11·00	6·45	·98	Elec. Dpt.	1,525,708	1·52
Ayr	33.000	Sept., 1901	5 69	4 8½	71,775	3.316,380	353,945	14,334	7,622	53	6,712	9 35	2.303	891	+3,518	3.518	nil	9·46	5·17	1 01	Elec. Dpt.	324,157	1 30
Birkenhead ...	113,300	Feb.. 1901	13·52	4 8½	345,960	11,327,932	1.349,701	55,946	34,748	62	21,198	6·13	10,538	8,777	+1,883	1,883	nil	9·72	6·18	1·16	Own wrks	2,128,607	·72
Blackpool ...	50,000	1885	9·62	4 8½	267,178	6,357,218	735,103	42,061	27.873	66	14,188	5·31	8.422	5.713	+53	nil	nil	13·50	9·10	1·56	Elec. Dpt.	1.008,529	1·83
Blackburn ...	188,000	1887	14·13	4 0	320,203	7,742,692	951,484	44,682	29,369	66	15,313	4·78	8,818	11,633	—5,138	nil	nil	10·94	7·41	1·34	Elec. Dpt.	1,785,712	1·50
Bolton	171,100	Jan., 1900	25·13	4 8½	504,509	19,895,496	2.188,030	95,096	54.716	58	40,380	8·00	12,233	13,654	+14,493	12.233	2,260	10·33	6·00	1·14	Elec. Dpt.	3,098,292	1·25
Bournemouth ...	60.000	July, 1902	12·25	3 6	257,812	9,363.985	1.022,164	54.397	30,276	56	24,121	9·36	9,051	7.336	+7,734	nil	nil	12·31	7·11	1·34	Own wrks	1,601,039	·86
Bradford	324,000	July, 1898	48·52	4 0	818.205	39,639,44	4,546,942	197,438	135,869	69	61,569	7·52	*48,169	—	+13,400	2,917	nil	10·20	7·17	1·17	Elec. Dpt.	7,731,563	1 05
Brighton	123,500	Nov.. 1901	9·95	3 6	242.811	10,999,046	1,151,477	46,264	40,356	87	5,908	2·43	7,199	3,488	—4,779	nil	nil	9·60	8 41	1·00	Elec. Dpt.	1,774,988	1·50
Burnley	154,000	Dec., 1901	10·77	4 0	176,468	7,514,063	896,397	43,738	30,644	70	13,094	7·42	6,132	3,426	+3,536	3,536	nil	11·58	8·20	1·38	Elec. Dpt. & Nelson Crp.	1,461,700	1·79
Burton-on-Trent.	52.000	Aug.. 1903	5·74	3 6	82,500	2,566,134	282.378	11,943	8,919	75	3.024	3·67	1,533	773	+718	718	nil	9·84	7 58	1·08	Elec. Dpt.	362.827	1·46
Cardiff	168,000	May, 1902	14 63	4 8½	687,222	23,574,204	2.643.762	105,017	65.351	62	39,666	5·77	19,219	14,084	+6,363	403	642	9·24	5·93	1·04	Own wrks	5,896.506	·45
Chester	39.000	April. 1903	2·50	3 6	66,098	2,002,835	260,785	8,916	5,332	60	3,584	5·42	2,026	1,218	+340	nil	nil	8·17	4·91	1·06	Elec. Dpt.	239,072	1·75
Darwen	40,000	Oct., 1900	4·36	4 0	79,272	2,236.102	253.345	12.371	8.413	68	3,958	4·99	2,411	1,982	—435	1.050	nil	10·92	7·97	1·24	Elec. Dpt.	422.583	1·71
Dover	42,000	Sept., 1897	3·00	3 6	41,850	2,871,332	280,901	11,839	8,714	74	3,125	7·47	*2,205	—	+920	nil	nil	9·63	7·45	·94	Elec. Cpy.	319,413	2·75
Dundee	163,000	July, 1900	12 65	4 8½	263,382	11,420,985	942,969	44,437	28,521	64	15,916	6 04	6,837	5.000	+4.079	2.842	nil	11·15	7·26	·92	Elec. Dpt.	1,661,721	1·49
East Ham ...	104,000	June, 1901	6 82	4 8½	135,591	12,950,269	807.002	35,301	24.262	69	11,039	8 14	5,806	3,285	+1,948	1 356	nil	10 20	7·22	·64	Elec. Dpt.	920.696	1·75
Farnworth ...	50,000	Jan., 1902	4·33	4 8½	43,696	1,532,293	242.524	7,486	4.850	65	2,636	6·03	3 241	1,175	—1,780	nil	nil	7 40	4·80	1·17	Elec. Dpt.	317,126	·50
Glasgow	1.000,000	July, 1894	70·34	4 7¾	2,107,880	188,962.610	16,291,082	724,851	356,820	49	368,031	17·46	64,376	45,553	+258,102	233,102	25 000	10·58	5·26	·91	Own wks.	15,372.609	·42
Halifax	168,000	June, 1898	33·41	3 6	342.460	16.322 059	1.387.885	68,289	50,758	74	17,531	5·12	9.957	7.081	+493	493	nil	11·76	8·78	1·00	Elec. Dpt.	2 659.920	1·62
Huddersfield ...	100.000	Feb.. 1901	28	4 7¾	411,722	11.899,287	1,632,000	65,883	34 665	53	31,218	7·58	13 632	10,638	+6,948	11,687	nil	9·37	5·10	1·28	Own wks.	2,565.643	·34
Hull	248,000	July, 1899	13·60	4 8½	383,977	24.220.718	2.512,821	101,259	63 194	62	38,065	9·91	9.932	9.148	+18.985	7,485	11.500	9·61	6 04	1·00	Own wks.	3.285,621	·63
Ilford	52,000	Mar.. 1903	6·50	4 8½	132,874	5,274,025	577,034	23.218	13,568	58	9,650	7·26	3,046	2,033	+4,571	4,571	nil	9 39	5 64	1·03	Elec. Dpt.	563,464	1·50
Kirkcaldy ...	34,100	Feb., 1903	5·25	3 6	78,731	2,770,936	301,779	10,189	7,623	75	2,566	3·26	2.012	471	+83	40	nil	7 90	6·06	·86	Elec. Dpt.	395,071	1·75
Lancaster ...	40,300	Jan., 1903	3·41	4 8½	27,207	1,079,772	153,692	4,191	4,654	111	*loss* 463	—	1.245	1.125	—2.833	nil	nil	6·54	7·27	·93	Elec. Dpt.	199,600	2·00
Leeds	446.400	Feb., 1894	42·51	4 8½	1,107,977	60,739.234	6.091,437	281,418	155,598	55	125,820	11·36	27,639	27.094	+71,087	19.087	52,000	10·94	6 13	1·10	Own wks.	9.518,680	·34
Liverpool... ...	760,000	1868	57	4 8½	1,863,485	113,057,234	11,734,838	533,394	335,621	63	200,773	10·77	52,932	51,598	+96,243	64,162	32,081	10·73	6·86	1·11	Elec. Dpt. & Bootle Crp.	17,978,718	1 08
Manchester ...	750.000	June, 1901	79·49	4 8½	1,485,612	120,772,368	13,759,071	611,881	392,504	64	219,377	14·77	72,781	26.903	+119	69,693	50,000	10 52	6·85	1·20	Elec. Dpt.	16,815,764	1·49
Nelson	36.000	Feb., 1903	2·74	4 0	30,493	1,420.759	171,132	4,655	3,563	77	1,092	3·58	781	232	+79	nil	nil	6 47	5·00	·78	Elec. Dpt.	170,611	2·00
Newc'stle-on-Tyne	257,000	Dec., 1901	23·36	4 8½	1,054,493	39,715,120	4,059,907	184.170	120,700	66	63,470	6·02	28.896	22.638	+11,936	nil	nil	10 68	7·14	1·09	Own wks.	7,757,885	·36
Newport	76,000	April. 1903	8·50	4 8½	164.219	4,473,411	635,000	23.653	15.533	66	8.120	4·95	4,360	3,360	+400	nil	nil	8·63	5 87	1·22	Elec. Dpt.	641,860	1·50
Nottingham ...	240,000	Jan., 1901	16·25	4 8½	559,838	27,876.889	2.512,000	128,202	71.259	56	56,943	10·17	15,333	15,128	+26,482	13,482	13,000	12·07	6 81	1·09	Elec. Dpt.	3,768.601	1·25
Oldham	100,000	Dec., 1900	17·93	4 8½	432,188	12,968,880	1,420,455	60,413	43,286	72	17,127	3·96	15,324	9,629	—7.826	nil	nil	10·01	7·31	1·10	Elec. Dpt.	2,177,309	1·50
Portsmouth ...	198,000	Sept., 1901	14·50	4 7¾	634,406	18,204.426	1,828,193	92.917	43,427	47	49,490	7 80	18,343	15,119	+16.028	16,028	nil	11·46	5·70	1·15	Own wks.	2,695,605	·55
Rochdale	86,000	May, 1902	3·96	4 8½	83,386	1,156.300	194,490	6,981	6,761	97	220	·26	2.851	1,406	—4,037	nil	nil	8·42	8·34	1·42	Elec. Dpt	393.180	1·47
Rotherham ...	58,000	Jan., 1903	8·33	4 8½	105,762	4,914.479	525.840	21,341	15.602	73	5,739	5 42	2,088	1,261	+2,390	2,407	nil	9·57	7·12	1·02	Elec. Dpt.	806,291	1·50
Salford	300,000	Oct., 1901	32·50	4 8½	511,170	36,956,405	4,726,446	198,648	139,508	70	59,140	11·57	27,529	16,171	+15,440	3,440	12,000	10·08	7 09	1·29	Elec. Dpt. &Man.Cp.	6,102,524	1·89
Sheffield	425,000	1872	32·50	4 8½	988,316	61,450,993	5,768,231	233,829	156,403	67	77,426	7·83	30,722	19,394	+27.310	33.771	8,249	9 67	6·51	·91	Own wks.	9,460,618	·48
Southampton ...	107,800	July, 1898	9·72	4 8½	198,621	9,890,952	1,144,350	53,501	36,640	68	16.861	8·49	5.935	4.720	+6,206	1.206	5,000	10 88	7·68	1·26	Elec. Dpt.	1,298.392	2·25
Southport ...	49,000	June, 1900	8·42	4 8½	118.364	3,837,208	431,019	17,646	10,986	62	6.660	5·63	3,803	3,198	—341	nil	nil	9 63	6 12	1·08	Elec. Dpt.	492,261	1·50
Stockport... ...	110,000	Aug., 1901	12·27	4 8½	140,276	3,170,854	606,476	19,074	12.914	68	6.160	4 39	4,196	1.334	+630	nil	nil	7·37	5·11	1·41	Elec. Dpt.	790,892	1 50
Sunderland ...	158,900	June.1900	10·92	4 8½	277,240	14,848.958	1.433,463	62.669	36,517	58	26,152	9·43	8,241	8,330	+9.581	5 567	4.014	10·46	6·11	1·01	Elec. Dpt.	1.562.748	1·87
Wallasey... ...	56,500	Mar., 1902	8·48	4 8½	127.949	6,564,493	757,688	35,873	24,980	70	10,893	8·51	4,064	1.618	+5,211	4.500	2.650	11·17	7·91	1·29	Elec. Dpt.	1,243,340	1·63
Warrington ...	80,000	April, 1902	6·42	4 8½	94,563	3.940,305	419,036	16,264	12,012	74	4,252	4·50	3,024	2,011	—783	nil	nil	9·15	6·88	·97	Elec. Dpt.	496,268	1·90
Wolverhampton.	94,200	Mar., 1902	7·33	3 6	183,840	4.555,435	507,527	23,591	14,911	63	8,680	4·72	5,278	2,293	+1,109	3,475	nil	10·97	7·05	1·22	Elec. Dpt.	773,208	1·66
Yarmouth ...	35,000	June, 1902	3·59	3 6	44,149	1,611,699	222,350	7,876	5,939	75	1,937	4·39	1,570	582	−215	nil	nil	8·33	6·41	1·15	Elec. Dpt.	172,939	2·50

* Includes Repayment Charges.

CHEAP TELEPHONES.

A Luxury for Dwellers in Flats Rendered Possible by the Perfecting of the Party-Line System. Private Telephonic Communication Secured at a Minimum of Cost. Mode of Operating the Arnheim System. Its Advantages Summarised.

ACCORDING to certain prophetically-inclined individuals professionally connected with the estate market, London will, in the not far-distant future, become, to a great extent, a city of luxurious flats, not only in the fashionable south-western district, but even in the fine, open, semi-suburban residential localities of the north, such as Finsbury Park and Stamford Hill. This tendency to substitute compact blocks of houses within houses for the expensive and badly-fitted isolated house, is very noticeable, and many houses in these and contiguous districts will be converted into blocks of flats as soon as the leases held by the present tenants expire.

The great advantage the residential flat possesses over the isolated complete house is, unquestionably, its more up-to-date equipment. Combination can, by apportioning expenses, secure advantages which it would be beyond the means of the single unassisted householder to maintain. It is electricity which is the chief element in the rise of the residential flat. The electric railways, and the electrification of the tramway systems, the advantages of which will probably in time be extended to all parts of the metropolis, have made communication between city and suburbs comparatively easy; and it is electricity which, it appears, is about to make this communication very much more perfect than it is.

A Want Supplied.

This is to be accomplished by the introduction of the most improved party-line telephone system which has yet been invented. Hitherto telephonic communication for household purposes has been regarded as a desirable but too expensive luxury. Attempts were made to modify this difficulty by introducing party-line systems, but although the end desired—that of reducing the cost to the subscribers—was, to a certain extent, attained, there were two great drawbacks which operated against the popularity of the party-line system firstly, only a small number of telephones could be connected to the line; secondly, one's conversation could be overheard by a third or fourth party. These difficulties are overcome by the perfecting of the Arnheim party-line system recently introduced. The new system is designed for the purpose of supplying blocks of offices, residential flats, &c., with telephones at a cheap rate, and enables the parties connected to it to call up the central exchange in the same manner as though they had a line direct to the exchange, without fear of interruption or overhearing of any kind. Where there is a demand for a cheap telephone by people who do not require to be constantly using it, this system will, undoubtedly, be welcomed.

A single pair of wires is run from the nearest telephone exchange to the building or district connected; these terminate in a small case containing an automatic selector, from which point radiate as many pairs of wires as there are instruments required. At the exchange end, in addition to the usual line equipment, there is fixed at the operator's position a small dial, numbered from one upwards, with which the operator selects the required subscriber. There is also an electric pendulum, which alternately makes and breaks the circuit. This pendulum is entirely self-acting, and requires no attention whatever, as its movements are controlled by an electro-magnet, the circuit of which is controlled by the pendulum itself, and so arranged that when the oscillations of the pendulum begin to decrease in force a circuit is closed automatically through the magnet, which attracts the pendulum, and so gives it a fresh impetus. In a subscriber's instrument all that is necessary, in addition to the usual equipment, is a small push button with a simple electro-magnet locking device.

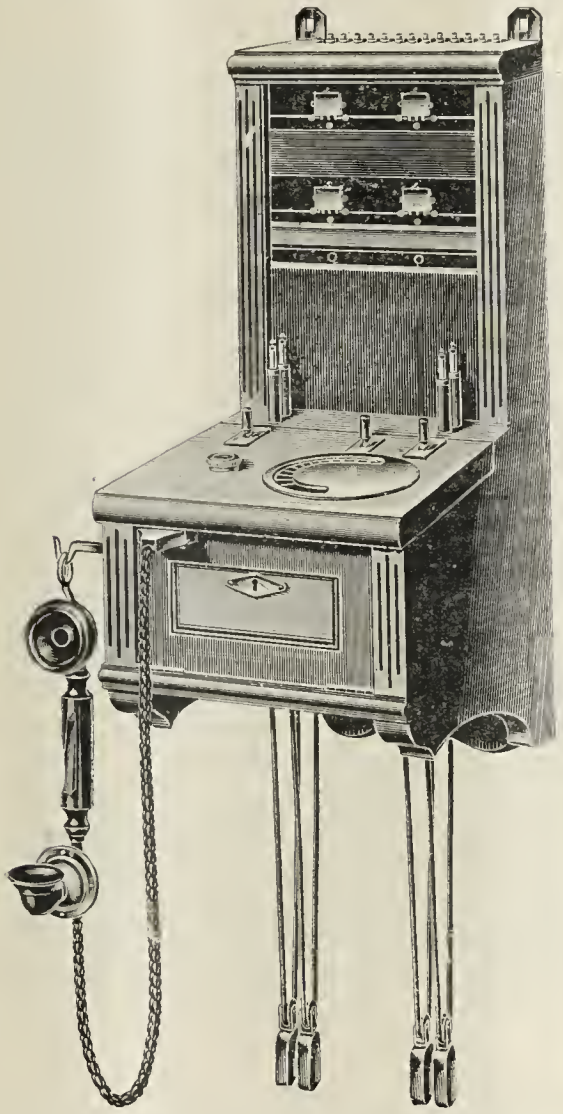
Simplicity of Working.

The method of operation is as follows:—

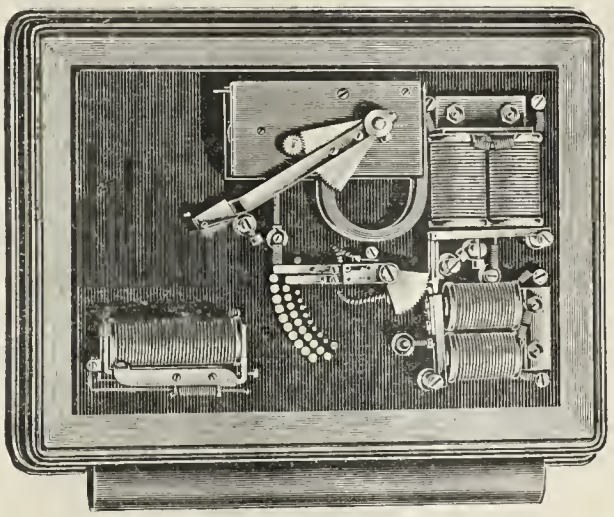
To call the exchange, the subscriber depresses the push button and lifts his hand-combination from the cradle. This closes the circuit of the pendulum, energising a relay, which permits the impulses of current given by the pendulum at the central station to actuate the stepping mechanism of the automatic selector, which passes over a number of contact studs until it reaches the line of the subscriber who is making the call. At this point the circuit is cut off and the selector is automatically locked, and simultaneously the push button at the subscriber's instrument rises, giving a visual signal that the line is clear. The subscriber then calls the exchange by using the hand generator of his telephone. If the push button does not rise when the hand-combination is lifted, it shows the line to be engaged.

The chief advantages of the system are briefly that, attached to a block of flats, it enables the tenants to enjoy the luxury of private telephonic communication at a surprisingly cheap rate. It is impossible for outsiders to overhear the conversation of the individual subscribers using the line; and, lest one tenant should monopolise the instrument, the operator has power to restore the connections to the normal condition after a reasonable time has elapsed.

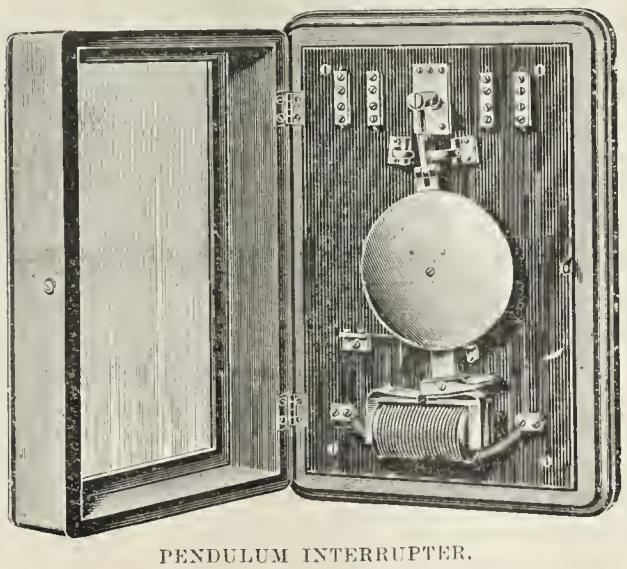
The system, which is introduced by the Berliner Telephone Manufacturing Co., 200, Upper Thames Street, E.C., has passed its experimental stage, and is an accomplished commercial commodity, being, in fact, now under consideration by the National Telephone Co. and the Post Office Telephone Department.



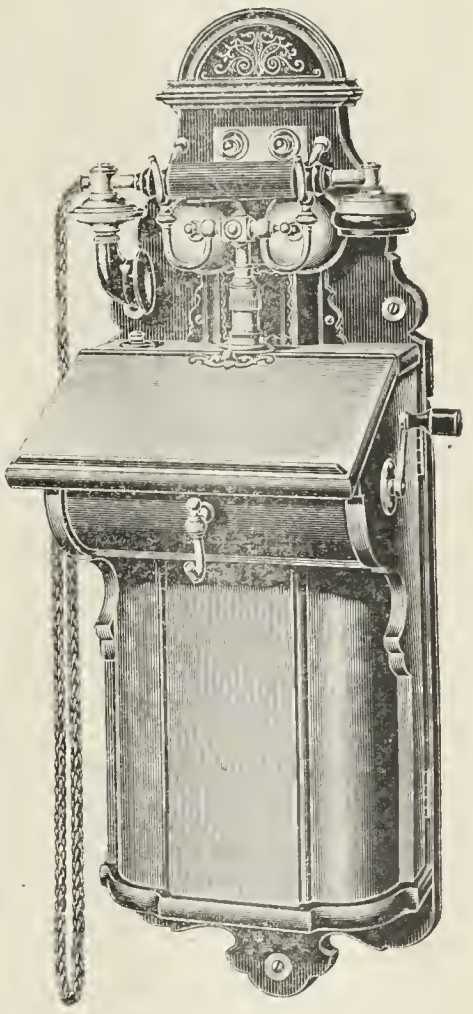
EXCHANGE SWITCHBOARD EQUIPMENT.



AUTOMATIC SELECTOR.



PENDULUM INTERRUPTER.



SUBSCRIBERS' INSTRUMENT.

ASSURANCE IN THE MIDLANDS.

New Offices of the Britannic Assurance Company, Limited, Erected in Birmingham, from the Designs of Local Architects. British Labour and British Material used in Constructing the Building. Description of Imposing Exterior and Ornamental Interior. A Building of which any City might be Proud.

THE metropolis of the Midlands has acquired a notable addition to its many fine buildings in the splendid pile which forms the new chief offices of the Britannic Assurance Company, Ltd. The enterprising company which has thus added to the beauty of the City of Birmingham used to be designated the British Workman's and General Assurance Company, Ltd.; but the change of name was felt to be in keeping with the company's enlarging aspirations, and due to the extended character of the business of assurance, which is assuming a national importance not limited in its effects and scope to the working-classes. The noble structure of which we give an illustration was erected upon the site of the late headquarters of the company. No expense has been spared to make it worthy not only of Birmingham, but of the important position the company occupies in the assurance world. Of course, an improvement of this character is in itself a very significant sign of prosperity, and it goes without saying that it has been rendered necessary owing to the rapidly-developing business.

The new offices are eight stories high, and have a floor space of upwards of 45,000 square feet. The centre terminal is no less than 125 feet above the footpath, the towers being each about 100ft., and the roof 80ft. The frame-work of the entire structure is of steel stanchions and girders; concrete with wood-block paving has been used for the floors; while patent expanding metal lathing helps to form the ceiling.

As was most appropriate in an office styling itself the Britannic Assurance Company, British labour and British material were stipulated for and employed during the construction. The material used was naturally as considerable in quantity as it was excellent in quality. Its chief items consisted of some 1,200 tons of granite and Portland stone, 3,200 tons of bricks, and 285 tons of steel girders and stanchions.

It will be observed that the design is in the Georgian or Renaissance style. The architects are Messrs. Wood and Kendrick, of West Bromwich and Birmingham. Aberdeen granite has been used for the base, the super-structure being in Portland stone and brick. In the centre are coupled Ionic pillars, 31ft. high, with frieze and bold cornice, rising into a tympanum, with richly-carved modillion and bed moulds. The towers, with their dominal finishes, rise above the massive cornice at each end. What may be termed the centre-piece has a dominating arch, which opens with coupled columns on each side and a pediment, and finishes with ball and terminal 21ft. high. The groups of statuary seen at each side of the arched opening consist of heroic figures, that to the east representing "Britannia sheltering Benevolence and Charity," and that to the west representing "Security and Peace."

The basement, which is used for the receipt, registration, and sorting of postal and parcels deliveries, for the storage of proposals, and for the storage and despatch of stationery, is 125ft. by 34ft. The sub-basement is 20ft. below Broad Street pavement, and is lined horizontally and vertically with asphalte, rendering it absolutely impervious to damp. It contains a fireproof securities room 23ft. by 18ft., an account book store 15ft. by 18ft., and also the apparatus for heating the whole of the building. This is effected by means of hot-water pipes and radiators, operated by a large standard boiler. There are no fireplaces in the building, which is electrically lighted throughout.

The interior is of a substantial and highly ornamental character. On the ground floor at the west end of the building is the large main entrance hall, 36ft. by 15ft., entered from a vestibule, 10ft. by 10ft. The outer doors are of solid teak, the inner screen being of carved mahogany with brilliant cut glass panels. The floors of vestibule and hall are laid in Venetian granite marble mosaic. Above the handsome mahogany dado panelling—8ft. high—the walls of the hall are decorated with ornamental glass mosaics, representing various British industries; the left-hand groups represent printing, joinery, weaving, and agrieulture; the right-hand groups represent the shoemaker, puddler, blacksmith, and collier. These panels are divided by the national coats of arms of England, Scotland, Wales, and Ireland respectively, and the city arms of Birmingham and London. Opening from the hall is the public inquiry office. At the east end of the building is the secondary hall, with decline to basement and sub-basement. On this floor are the cashiers' and accountants' offices, and a large office, 98ft. long, accommodates the ordinary, special tables, loans, paid claims, and correspondence departments.

The first floor is approached by a handsome staircase with Verona red marble mosaic treads, giving the appearance of a rich carpet. The walls of the staircase and of the first floor corridor are done in Roman marble fan-shaped mosaic. The staircase is lighted by two beautifully-designed windows, representing the same allegorical groups as the crowning statuary on the front elevation. On the first floor are the board-room (35ft. by 18ft.), directors' rooms, secretary's room, and accommodation for the administrative staff. The board-room is ornamented by handsome mahogany panelling and over-doors, whilst the ceiling is richly plastered in Georgian style.

The second, third, and fourth floors are each 132ft. by 34ft., and these accommodate the audit, proposal, policy, and valuation departments, while a portion of the fourth floor is devoted to the typists with their machines and dictating telephone receivers. On the fifth floor is a mess-room for the staff, storage for collecting-books, &c., and caretakers' quarters. The furnishing and equipment is, as may be imagined, of the most up-to-date description.

A system of departmental telephones has been installed, whilst a series of "dictating" telephones enables the head of each department to dictate his correspondence direct to the typists on the fourth floor. An electric lift at each end of the building, running at a speed of 300ft. per minute, provides a ready means of conveyance from floor to floor.

The electric installation, lifts, heating, and ventilation were executed under the supervision of Messrs. Henry Lea and Sons, consulting engineers, Birmingham; the building contractors were Messrs. John Barnsley and Son, of Birmingham; the mosaics were executed by Messrs Diespeker, Limited, of London; the heating apparatus was installed by Messrs. Benjamin Parker, Limited, of Birmingham; the electric installation by The Preston Electric Company, Limited, of Birmingham; the art metal electric pendants, &c., were supplied by Messrs. Best and Lloyd, of Birmingham; the lifts by Messrs. Archibald Smith and Stevens, of London; the lift enclosures and balusters by Messrs. Hart, Son, and Peard, Limited, Birmingham; the stained, cut, embossed, and plain glass by Mr. Martin Dunn, West Bromwich; the strong room doors and fittings by Messrs. Samuel Withers and Co., West Bromwich; whilst the furniture, fittings, and office fitments have been supplied by Messrs. Goodall, Lamb, and Heighway, of Manchester; The Library Bureau, Limited, London; Mr. W. H. Hilton, Birmingham; Messrs. Kenrick and Jefferson, Limited, of West Bromwich and Birmingham; The Trading and Manufacturing Company, Limited, of London; and Messrs. Chamberlain, King, and Jones, Limited, of Birmingham.

NEW OFFICES OF THE BRITANNIC ASSURANCE COMPANY.

PORTLAND CEMENT.*

It Brings Birmingham Water Supplies from Welsh Mountains, and is Otherwise an Invaluable Article. Methods of Manufacture in Great Britain and Abroad. Various Approved Methods of Testing the Cement. A Paper that will be Read with very Great Interest by Municipal Surveyors and Engineers and General Contractors.

[*By Mr. H. K. G. BAMBER, F.C.S.*]

(Continued.)

IT will be understood that this is a very costly part of the manufacturing process, the cost of grinding being in direct ratio to the fineness; the finer the powder, and, therefore, the more valuable the article, the greater the cost to the manufacturer. The most modern practice in this department has led to the reduction of the clinker to such extreme fineness that all passes through a 50-mesh sieve, 98 per cent. through a 76-mesh sieve, 95 per cent. through a 100-mesh sieve, and from 80 to 85 per cent. through a 180-mesh sieve—the sieves mentioned corresponding to 2,500, 5,776, 10,000, and 32,400 holes per square inch respectively.

It is at this point of the manufacture that the regulation of the setting time of the cement is effected. A thoroughly well-made and finely-ground Portland Cement is always, when first ground, very quick setting. The more thorough the amalgamation of the raw materials, the more perfect the calcination, and the finer the grinding, the greater the chemical activity of the cement produced when mixed with water, and therefore the quicker the set.

Except for work under water, a very quick-setting cement is not desirable, and therefore it is necessary for the manufacturer to neutralise the initial setting of the cement by one or other of the recognised methods. Hitherto, this has been done by the addition of various small percentages of gypsum ($CaOSO_3$), but as some engineers have an objection to an admixture of this material, the manufacturer was left to seek some other means of attaining the same object.

A New System.

A new and very effective system, which has been in use now for some time, consists of subjecting the cement in the final stage of grinding to a moist atmosphere. This is done by injecting into the tube mill already described a quantity of steam, regulated at will, which keeps moist the atmosphere in the enclosed mill, so that as the mill revolves, carrying up and rolling over the stones and cement therein, every particle of the latter is subjected to a continuous and repeated process of superficial hydration, eventually leaving the mill in the finished condition, each molecule of cement equally treated. The process is one of great simplicity, and follows quite natural lines. It is well known that a quick-setting cement, if allowed to become aerated by exposure to the atmosphere, becomes slow setting, and that in proportion to the period of aeration, and also improves in soundness by the neutralisation of any particles of free lime present through the absorption of water and carbonic anhydride (CO_2) from the atmosphere. This action is very imperfect, however, when cement is stored in bulk, and can only be in a measure successfully accomplished by continually turning over the cement and exposing fresh surfaces for aeration.

The new system was perfected to overcome these difficulties, and it will be readily understood that the amount of hydration or aeration that each atom or particle of cement is subjected to under the new process during a period of one or two hours in the moist atmosphere of the rolling tube mill is much more perfect than in the case when cement is stored in bulk, and depends on absorption from the atmosphere for its aeration.

A Scientific Fact.

It is not generally known that the free or loosely-combined lime in cement will not absorb carbonic anhydride from the atmosphere until it has first taken up moisture and become converted into the hydrate, in which condition it is free to absorb carbonic anhydride from the air, being then converted into inert calcium carbonate.

The effect of the hydration process is first to hydrate any trace of free lime present, and, secondly, to hydrate the loosely chemically-combined aluminates of lime, to which latter are attributed the quick initial setting properties of the cement.

The system permits of such minute regulation, depending on the amount of steam injected, that the setting time of the cement being produced can be permanently regulated to comply with the requirements of any specification, the total maximum absorption, even for a slow-setting cement, being less than 1 per cent.

Having passed this final stage of the manufacturing process, the cement is delivered to the warehouse, where it remains until the mechanical heat, due to the friction of grinding, is eliminated, when the cement is ready for immediate use.

The time at disposal will not admit of a more lengthy description of the three main processes, but from what has been said it will be seen what strides have been made during recent years in bringing the manufacture of Portland Cement to a thoroughly scientific basis. Sufficient has been said, however, to enable a comprehensive view to be taken of the various tests to which the cement has to be submitted in the hands of the consumer.

Testing of Cement.

Chemical Composition.—The chemistry of Portland Cement has been, and still remains, a very abstruse subject. A considerable amount of research has been made from time to time by various chemists, who have thereby thrown some light on the chemistry of a very complex subject; but there yet remains a wide field of research for the scientist and manufacturer before the whole truth will be known.

The following shows the chemical composition typical of the bulk of cements in use, the sample being taken when fresh ground.

Analysis.	
Silica (SiO_2)	22.00
Insoluble residue (sand and in ilicates)	0.75
Alumina (Al_2O_3)	7.60
Ferric oxide (Fe_2O_3)	3.55
Lime (CaO)	61.90
Magnesia (MgO)	1.25
Sulphuric anhydride (SO_3)	1.50
Carbonic anhydride (CO_2)	0.25
Water (H_2O)	0.75
Potash (K_2O) } Soda (Na_2O) } and loss	0.45
	100.00

The percentage amounts of the various ingredients will of course be somewhat changed if such cement is subjected to prolonged aeration, when the amounts of carbonic anhydride and water will be found to have much increased by absorption from the atmosphere, with a consequent diminution in the percentage quantities of the other ingredients. For this reason, in cases where the percentage of lime present is fixed by specification, the amount found on analysis should be considered absolutely in conjunction with the amount of matter volatile on ignition, *i.e.*, the water and carbonic anhydride; otherwise, it will be clear that an erroneous opinion may easily be formed, leading to a mistaken decision on the quality of the cement.

Directions as to Sample.

It is advisable, where an analysis is specified for any cement, that the sample should be taken, if at the works, as soon as possible after the cement is ground, or, if after delivery to the consumer, immediately on arrival; and, in either case, the sample should, when taken, be placed in a hermetically sealed receptacle, such as a glass-stoppered bottle, and thus kept free from exposure to the atmosphere till the analysis is made. Under those conditions, the original composition of the cement remains unchanged. Unless such precautions are taken, no reliance whatever can be placed on the results of the analysis as representing the composition of the bulk from which the sample was drawn.

It will be foreign to the matter before us to go into the question of methods of analysis, as such matters are not dealt with by the engineer, the same being delegated to some expert fully acquainted with the proper methods, and whose decision is generally acted upon by the consumer.

Percentage of Lime.

For many years, the maximum amount of lime permitted by the specifications was 62 per cent.; but since the many improvements both in the amalgamation of the raw materials and the more perfect calcination, a large percentage is advisable, and in cases, as in the rotary process where the clinker is not contaminated by the ash from the kiln, the percentage of lime can be, and is, beneficially increased up to 64 per cent. in the finished cement. As a matter of fact, 64 per cent. of lime is about the usual percentage in all cement clinker, even when manufactured by the older processes; but during the calcination, the ash (chiefly silicates of alumina) from the coke or coal becomes mechanically mixed with the clinker when drawn, and cannot be separated, and is ground together, reducing the relative percentage of lime in the finished cement in direct proportion to the amount of silicates of alumina, etc., or ash picked up from the fuel, which in actual practice reduces the percentage of lime from the neighbourhood of 64 to 61 per cent., the approximate amount found on analysis in most cements.

Dependent on Acids.

In dealing with this point when compiling a specification for cement, the Engineering Standards Committee decided not to fix any definite percentage of lime, regardless of the other ingredients, as has formerly been the custom, but rather to stipulate that this base (lime) should correspond chemically with the percentage of acid constituents (*i.e.*, silica and alumina found to be present in the cement), the ratio of one to the other being represented by the following equation given in the standard specification, which reads, "The proportion of lime to silica and alumina should not be greater than the ratio represented by

$$\frac{CaO}{SiO_2 + Al_2O_3} = 2.75.$$

This equation is based on the atomic weight of the constituents and not on the percentages, and in order to make this method of calculation quite clear, let us work out the equation on the basis of the analysis of cement just given, and see if such composition falls under the maximum limit of the specification.

(To be Continued.)

At a cost of about £12,000, the Heywood Corporation is about to provide twelve bacterial filter beds, sedimentation tank, and Adams lift at its sewerage works at Botany. There are no land filtration works in connection with this scheme, and this is said to be the first time the Local Government Board has sanctioned such an arrangement.

* Paper read at the District Meeting of the Incorporated Association of Municipal and County Engineers, held at Birmingham.

One Gallon covers from 60 to 70 square yards on a prepared surface.

"SANALENE"

The Latest Production.

A PERFECT ENAMEL PAINT.

Flows Freely, Hard Wearing, Easily Washed and Polished.

"SANALENE"

BLUE LABEL

For Inside Use.

FOR PRACTICAL WORK
BY PRACTICAL USERS.
Supplied in White or Colours, as desired.

For Colour List and Full Particulars, apply to

ASPINALL'S ENAMEL, Ltd.,
NEW CROSS, LONDON, S.E.

RED LABEL

For Outside Use.

COOLEY'S

PATENT

DOUBLE DOWEL-PINS
WILL REVOLUTIONISE
WOOD PAVING.

These DOWELS form a solid mass, effectively counteracting vibration, and thereby considerably increasing the life of the road.

For WOOD-BLOCK FLOORING this system of DOUBLE DOWELLING is recommended in all cases where the floors are subject to heavy traffic, such as in Factories, Warehouses, Public Halls, Schools, Sheds and Yards, &c.

FOR PARTICULARS APPLY—THE

WOOD-PAVING EXPANSION-CHANNEL & PIN CO.,

H. Cooley, C.E., *Managing Director.*

154, St. Saviour's Road East, LEICESTER.

ENGLISH INSTRUMENTS.

LATEST. CHEAPEST. BEST.

Some Important Specialities just placed on the market—

CALCULATING SLIDE RULE, by Prof. Perry.
SCALE GRADED CURVES, by J. Harrison, M.I.M.E., A.M.I.C.E., Wh.Sc. THE VALOMETER, TRANSPARENT-EDGE T-SQUARES, COLOURS, PENCILS, etc., etc.
Just published, post free, New Edition of CATALOGUE, with Coloured Illustrations.

A. G. Thornton,
PRACTICAL MANUFACTURER,
Contractor to H.M. Government.
34, KING ST., WEST,
MANCHESTER, ENG.

DRAWING INSTRUMENTS.

Special make, arrangement, and finish. The most practical and useful to be had, and quite different to what are usually sold.

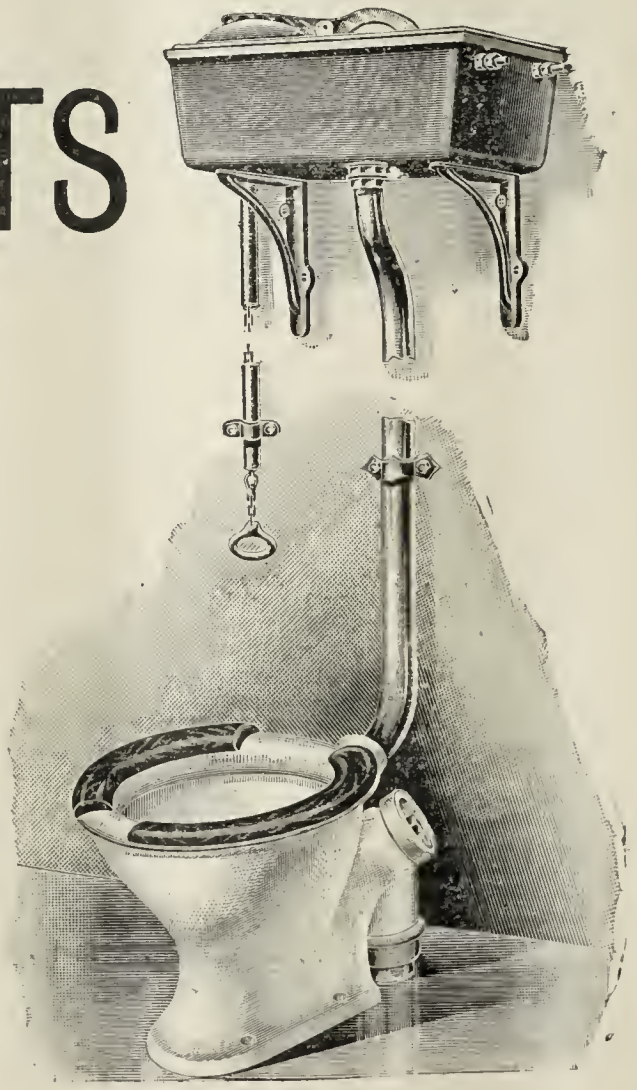
DOULTON'S

SPECIAL

SCHOOL CLOSETS

FOR

INFANTS AND CHILDREN.



These Closets are only 13½in. high, and are specially suitable for children. The pan and trap is in one piece, with brass inspection cap, and cleanses well with a 2-gallon cistern. It is made in two patterns, one with fixed side pieces, the other with lugs to take a hinged seat. Also made with side outlet.

DOULTON'S SPECIAL LIST OF SANITARY FITTINGS SUITABLE FOR SCHOOLS SENT ON APPLICATION.

Every description of High-class Sanitary Fittings for Mansions, Hotels, Clubs, Hospitals, Schools, and Public Buildings of all kinds to be seen in action at Showrooms—

ALBERT EMBANKMENT, LAMBETH, LONDON, S.E.

THE SURVEYOR AND CONTRACTOR.

Schemes in Progress and Suggested. Tenders Open. New Inventions for Local Government Enterprises.

Tenders Wanted.

Advertising on Tramcars, Walthamstow U.D.C.
April 28.—For advertising on their electric trams. See advt. in last issue. Mr. C. Sydney Watson, Clerk to the Council.

Alterations, &c., Cumberland Education Committee.
May 1.—For the whole of the works in connection with proposed alterations and additions to Dearham Council School. Mr. C. Courtnenay Hodgson, Secretary.

Asphalting, &c., West Riding Education Committee.
April 27.—For the various works required to be done in the erection of new closets, converting existing closets into coal and wood house, and asphalting playgrounds, at the Cridling Stubbs Provided School, situate near Knottingley. Mr. J. Vickers-Edwards, County Hall, Wakefield.

Bandstand for Sale, Wolverhampton Corporation.
See advt. in this issue. Mr. George Green, Borough Engineer and Surveyor, Town Hall.

Baths, Newcastle-under-Lyme Baths Committee.
April 26.—For erection of the King's Memorial Baths, Brunswick Street. Mr. Joseph Griffith, Town Clerk

Building, Barry U.D.C.
May 1.—For the erection of a new girls' school, to accommodate 398, together with a caretaker's house, cookery, kitchen, and a manual instruction room. Mr. T. B. Tordoff, Clerk to the Council.

Building Sites, Stepney Borough Council.
May 1.—Building sites of not less than 16,500ft. super within the borough of Stepney, suitable for the erection of a council chamber and municipal offices. Mr. George W. Clarke, Town Clerk, Municipal Offices, 15, Great Alie Street, Whitechapel, E.

Bridge, Cannock, and Stafford Rural District Council.
May 5.—For the construction of a new bridge over Longnor Brook. Mr. Herbert M. Whitehead, Engineer and Surveyor, Penkridge, Stafford.

Bridge, Barrow-in-Furness Corporation.
May 15.—For the construction of a steel road bridge over the Walney Channel, uniting Barrow Island and Walney Island. Mr. C. F. Preston, Town Clerk.

Building, Dalton-in-Furness U.D.C.
April 24.—For the erection of a manager's house, weigh office, and other buildings at their Askam-in-Furness gasworks. Mr. William Richardson, Architect and Surveyor.

Building, Burslem Corporation.
April 26.—For the construction of additional cellaring under the shambles. Mr. F. Bettany, Borough Engineer and Surveyor.

Building, Wigan Corporation.
April 29.—For the erection of 17 cottages in Spring Gardens. Mr. Harold Jevons, Town Clerk.

Building, Southport Education Committee.
May 1.—For the whole of the works connected with the erection of the Chestergate new schools. Mr. Arthur Lawton, Secretary.

Building, H.M. Commissioners of Works.
May 3.—For the erection of a new post-office at Salisbury. The Secretary, H.M. Office of Works, Storey's Gate, S.W.

Building and Repairs, Godstone R.D.C.
May 1.—For the erection of a new mortuary, and for painting, repairs, and additions to the Isolation Hospital, Bletchingley. Mr. Evelyn A. Head, Clerk to the Council, East Grinstead.

Building, Whitby R.D.C.
April 26.—For the construction of spring collecting works, collecting chamber, 2,750 yards of 3-in. cast-iron main, with air valves, washouts, break pressure tank, and other works in connection therewith, at Fylingdales. Mr. W. Seaton Gray, Clerk to the Council.

Building, Chorlton Guardians.
May 3.—For alterations and extensions at the Withington Workhouse. Mr. David S. Bloomfield, Clerk.

Coal, London County Council.
May 3.—For the supply and delivery of about 127,000 tons of coal of various descriptions, and 14,000 tons of coke from 1st July, 1905, to 30th June, 1906, for the several offices, schools, stations, steamboats, &c., under the Council's control. Mr. G. L. Gomme, Clerk to the Council, Spring Gardens, S.W.

Coal, Manchester Corporation.
May 10.—For supply of their requirements of cannel, screened coal, and screened nuts (unwashed) during one or two years, at their Gaythorn, Rochdale Road, Bradford Road, and Droylsden works, for the Gas Committee. Mr. Charles Nickson, Superintendent Gas Department, Town Hall.

Coal, Broughty Ferry Corporation.
April 24.—For the supply of about 6,500 tons of fresh wrought cannel coal and single, double, and treble nuts. The Engineer, Gas Department.

Coal, Newton-in-Makerfield U.D.C.
May 7.—For the supply of gas coal and cannel as may be required at the gasworks from June 1st, 1905, to May 31st, 1906. Mr. C. Cole, Clerk to the Council, Town Hall, Earlestown.

Coal, Birkenhead Corporation.
May 2.—For the supply of washed slack or washed small coal for a period of 12 months. Mr. Alfred Gill, Town Clerk.

Coal, North Berwick Town Council.
April 26.—For the supply of 600 tons of first-class coal and 1,600 tons of second-class coal. Mr. A. D. Wallace, Town Clerk.

Designs for Technical Institute, Rochester Corporation.
May 15.—Three premiums are offered for above, viz., 50, 20, and 10 guineas. Mr. Apsley Kennette, Town Clerk.

Designs for Libraries, Cardiff Corporation.
June 17.—From architects who have been in practice not less than six months as principals in Cardiff, for branch libraries to be erected at Canton and Cathays.

Designs for Library, Radcliffe U.D.C.
April 29.—Premiums of £50, £30, and £20 will be awarded for the most successful designs for above. Mr. S. Mills, Clerk to the Council.

Designs for Libraries, King's Norton U.D.C.
April 26.—Architects resident in or practising within the city of Birmingham may on certain conditions enter into above architectural competition for a library to be erected on the site in Church Hill, King's Norton. Mr. Edwin Docker, Clerk to the Council, 10, Newhall Street, Birmingham.

Destructor and Flag Plant, Sydney (N.S.W.), Municipal Council.
May 30.—For the supply and erection of a six-cell refuse destructor, and for a flag-making plant, at Moore Park, Sydney. See advt. in last issue. Mr. Thomas H. Nesbitt, Town Clerk.

Destructor, Sheffield Corporation.
May 2.—For works required in connection with the erection of a refuse destructor at Primrose Meadows, Heeley. The Chairman of the Health Committee, Town Hall.

Disinfecting Station, Kensington Borough Council.
May 15.—For the erection of above (excluding machinery and apparatus) at one of the Council's depots. Mr. William Chambers Leete, Town Clerk.

Electric Generating Station, Dublin Port and Docks Board.
May 15.—Tenders invited for above. Mr. N. Proud, Secretary.

Electric Installation, Lower Bebington U.D.C.
April 24.—For the work of electric installation for fire brigade alarm in New Ferry, and for supply of street lanterns for incandescent lighting. The Surveyor to the Council.

Electrical Stores, Wallasey U.D.C.
April 27.—For the supply over a period of twelve months from 30th June next of the following among other articles for use at the Electricity Supply Works, Liscard:—Cotton waste, coal-shovels, bolts and nuts, switches, &c., oils, meters, cable and junction-boxes, for bars, &c. Mr. H. W. Cook, Clerk to the Council, Egremont.

Electricity Works, Belfast Corporation.
April 24.—For the erection of pump-house, quay walls, &c., in connection with the generating station at East Bridge and Laganbank Road. Mr. R. Meyer, Acting Town Clerk.

Electrical, &c., Apparatus, Plymouth Education Authority.
April 26.—For the supply of apparatus for teaching purposes for the new mechanical and electrical engineering laboratories. Mr. E. Chandler Cook, 18, Princess Square.

Emergency Staircase, East Ham Education Committee.
May 11.—For iron emergency staircase at New Beckton School. See advt. in last issue. Mr. H. C. Padgett, Secretary, Education Office, E.

Excavations and Sewers, Middlesex County Council.
May 10.—For the formation of a new road 60ft. wide and about 2,160ft. long across the Red Ridge Estate, in the districts of Edmonton and Southgate. Sir Richard Nicholson, Clerk to the Council.

Extension of Sewer, Epsom R.D.C.
April 25.—For the carrying out of an extension (of about 350 yards in length) of the sewer in the main Sutton Road, Cheam. Mr. W. O. Reader, Clerk to the Council.

Filtering Material, Swinton and Pendlebury U.D.C.
April 26.—For the supply of above for use in bacteria beds, screened and broken to the sizes required; also for good cinders. Mr. W. T. Postlethwaite, Clerk to the Council.

Flint, South Stoneham R.D.C.
April 26.—For the supply of flints to the several stations in the district. Mr. E. T. Westlake, Clerk to the Council, 20, Portland Street, Southampton.

Flint, Littlehampton U.D.C.
May 3.—For the supply and delivery free in trucks of 500 tons of clean, handpicked land flints, broken to pass through a 2-in. ring, to be delivered in such quantities as directed by the surveyor before the 31st July. Mr. Arthur Shelley, Clerk to the Council.

Gasworks, Marple U.D.C.
April 26.—For the conversion of gasholder tank into a tar and liquor storage tank, and for foundations for condenser, scrubber, and purifiers. Mr. Charles F. Johnson, Clerk to the Council.

Granite, Wellingborough U.D.C.
April 27.—For the supply of 1,040 tons of 2½-in. granite, and 105 tons of ¾-in. granite chippings in each of the years 1905, 1906, and 1907. One hundred tons a week to be delivered at the Midland Railway station, in each of the said three years, commencing on the 22nd August in each year. Mr. J. T. Parker, Clerk to the Council, 29, Church Street.

Granite, Desborough U.D.C.
April 25.—For the supply of 500 tons of above, to be delivered at Desborough station in such quantities and at such times as required by the surveyor. Mr. D. J. Diver, Surveyor.

Incandescent Mantles, Dublin Corporation.
April 26.—For the supply of mantles and 6in. Jena chimneys for street lighting, for the ensuing year to 31st March, 1906. Mr. Henry Campbell, Town Clerk.

Iron and Steel, Sydney (N.S.W.) Public Works Office.
September 1.—For the manufacture, supply, and delivery in the State of New South Wales of all iron and steel required by the Government. The Agent-General's Office, 9, Victoria Street, London, S.W.

Labour, Peterhead Town Council.
April 29.—For blacksmith and cast-iron work, ironmongery, printing and stationery, cartage, and fodder for horses for one year from 16th May, 1905, to 15th May, 1906. Burgh Surveyor, Town House.

Library, Belfast Instruction Committee.
April 27.—For the erection of a branch free library in the Oldpark Road. Mr. R. Meyer, Acting Town Clerk.

Loan, Cheriton U.D.C.
May 1.—For a loan of £1,400, on mortgage of the district fund and general district rates, for private street works, repayable in four years by equal half-yearly instalments, with interest on the balance for the time being remaining unpaid. Mr. Arthur Atkinson, Clerk to the Council.

Loans, Walthamstow U.D.C.
May 1.—For educational purposes, various loans, repayable by equal half-yearly instalments of principal and interest combined. See advt. in this issue. Mr. C. Sydney Watson, Clerk to the Council.

Materials, Walsoken U.D.C.
April 26.—For the supply of 650 tons of granite, 350 tons of iron slag, 170 tons of Whittlesey fine gravel, and 630 tons of broken Wymondham gravel or Peterborough stone. Mr. James Kerridge, Surveyor, 118, Norwich Road.

Materials, &c., Wantage R.D.C.
April 30.—For supply of hand-picked stones, 18 bushels to the load, gravel and chalk, and rubble at per yard. The District Surveyor, East Ilsley.

Materials and Labour, Kempston U.D.C.
May 2.—For the supply of above in making Silverdale Street. Mr. William Payne, Clerk to the Council.

Meat Extract, &c., Islington Guardians.
April 26.—For the supply of extract of meat, port wine at £30 per pipe, and brandy. Mr. Edwin Davey, Clerk to the Guardians, St. John's Road, Upper Holloway, N.

Oatmeal, Aberdeen Lunacy Board.
May 2.—For the supply of about 90 rolls of round-cut oatmeal, made from the best quality of well-dried, home-grown oats. Mr. C. B. Williams, Clerk, 20, Union Terrace.

Painting, Stafford Corporation.
April 17.—For above at the Municipal Cottages, in Broad Eye, and Crooked Bridge Road. Mr. M. F. Blakiston, Town Clerk.

Painting, &c., Stratford-upon-Avon Town Council.
April 24.—For painting and repairs at the cemetery, Evesham Road. Mr. Robert Dixon, Borough Surveyor.

Painting, West Derby Guardians.
April 26.—For painting at the infirmary, Mill Road, Liverpool. Mr. Harris P. Cleaver, Clerk.

Painting, &c., Nottingham Education Committee.
April 26.—For cleaning, painting, and whitewashing the out offices at the various Council and Trust schools. Mr. W. J. Abel, Clerk, Education Offices, Victoria Street.

Painting, &c., Bury St. Edmunds Corporation.
April 29. For painting, tarring, and executing certain work at the small-pox hospital. Mr. Walter D. Harding, Borough Surveyor.

Park Requisites, Bradford Corporation.
April 20.—For the supply of plants, trees, garden-pots, &c. Mr. Frederick Stevens, Town Clerk.

Paving, &c., Heath Town U.D.C.
April 25.—For the paving, kerbing, channelling, and making generally of Nine Elms Lane. Mr. J. W. E. Stirk, Clerk to the Council.

Paving, Materials, &c., Chatham Borough Council.
April 27.—For the supply of 7,000 Jarrah wood paving blocks, 8,000 6-in. by 2½-in. by 2¾-in. stable paving bricks, and 470 cubic yards of surface-picked flints. Mr. H. P. Mann, Town Clerk.

Plans for Dwellings, Norwich Corporation.
May 8.—The Housing Committee offer a premium of 20 guineas for the best set of above. Mr. Arthur E. Collins, City Engineer.

Police and Fire Station, Windsor Town Council.
April 27.—For erection of above, in St. Leonard's Road. Mr. E. Cecil Durant, Town Clerk.

Potatoes, Chelmsford Guardians.
April 25.—For the supply of six tons for use in the workhouse. Mr. W. W. Duffield, Clerk.

Printing, Bermondsey Borough Council.
April 29.—For printing the lists of electors, claims and objections, and registers, for the year 1905-6. Mr. Frederick Ryall, Town Clerk.

Printing, Bristol Corporation.
April 27.—For printing the minutes of the Council and reports of committees for the period of three years from May 1, 1905. Mr. Edmund J. Taylor, Town Clerk.

Printing, Glasgow Corporation.
April 29.—For the printing required from 1st June, 1905, to 31st May, 1908. Mr. John Bowers, Town Clerk.

Printing, Ealing Borough Council.
May 1.—For printing the burgess lists and burgess roll of the borough for one or three years (alternately). Mr. George E. Brydges, Town Clerk.

Provisions and Stores, Middlesex Asylum Committee.
May 4.—For the supply of groceries, provisions, tobacco, soap, and oilman's goods for various periods. Mr. Walter G. Austin, Clerk to the Committee.

Provisions and Stores, Roxburgh Asylum Committee.
May 3.—For supplying from 16th May to 15th November next, inclusive, the following articles:—Bread, meat, oatmeal, rice, fish, and soaps. The Medical Superintendent.

Pumping Works, &c., Bishops Stortford U.D.C.
May 8.—For supplying and fixing two Lancashire boilers, for supplying and fixing steam pumping engine and pumps, for supplying and fixing gas pumping engine and pumps, together with suction gas plant, complete. Mr. Thos. Swatheridge, Clerk of the Council.

Road, Burgess Hill U.D.C.
April 24.—For the construction and making good of the private street known as St. Mary's Road. Mr. A. F. Hardwick, Clerk to the Council.

Road, Manchester Corporation.
April 25.—For the construction of a new road, to be known as Victoria Avenue, from Middleton Road to the boundary of the Blackley Estate. Mr. Wm. Henry Talbot, Town Clerk.

Roads, Sheffield Corporation.
May 2.—For the construction of portions of Wincobank Avenue and Foxglove Road. Mr. H. Sayer, Town Clerk.

Roads, &c., Chingford U.D.C.
April 29.—For making-up, channeling, kerbing, paving, &c., the following roads, viz.:—Queen's Grove Road, the Cross Road running between the Garfield Road and Stanley Road, the Pathway on the north side of Station Road, between Buxton Road and Connaught Avenue, the Passages or "Rights of Way" at the rear of the shops in Station Road. Mr. H. Bird, Clerk to the Council.

Road Materials, &c., Middlesbrough Corporation.
April 26.—For the supply of sanitary pipes, plate bricks, common bricks, concrete flags and kerbs, Portland cement, broken whinstone, whinstone setts, slag, scorias blocks, broken scorias, manhole covers and frames, and other special castings required by the Corporation for the ensuing twelve months. Mr. Frank Baker, Borough Engineer.

Road Materials, Sevenoaks R.D.C.
May 2.—For the supply of quartzite, basalt or penlee, ragstone, chert, flints, &c. Mr. George F. Carnell, Clerk to the Council.

Road Materials, Hoxne R.D.C.
April 27.—At per ton, for such quantities of granite and broken flint as they may require during the year ending the 31st March, 1906. Mr. N. B. Garrard, Clerk to the Council.

Road Metal, Ashford (Kent) U.D.C.
April 27.—For the supply and delivery of Kentish ragstone, broken pit flints, gravel, &c. Mr. William Terrill, Surveyor.

Scavenging, Fife County Council.
April 25.—For scavenging the following districts for the year ending 15th May, 1906:—Aberdour, Kelty, Kincardine, Limekilns and Charlestown, and North Queensferry. Mr. John Ross, District Clerk, Dunfermline.

Sewage Pumping Plant, Haverhill U.D.C.
April 24.—For the supplying and fixing of a treble vertical ram pump capable of lifting 18,000 gallons of sewage per hour; also a gas engine suitable for driving same. Mr. F. W. Knewstubb, Engineer and Surveyor.

Sewage Works, Lichfield R.D.C.
May 5.—For the construction of about 400 yards of 15in., 780 yards of 12in., 2,300 yards of 9in., and 2,640 yards of 8in. stoneware pipe sewers at Chase Terrace within their district, together with the necessary manholes, lampholes, &c.; also for the construction of an open septic tank, and the laying-out of about 4½ acres of land in the same village. Mr. John Derry, Clerk to the Council.

Sewage Purification, &c., Wirral R.D.C.
April 27.—For the construction of sewers and sewage purification works at Childer Thornton, Eastham, Hooton, and Eastham Villages. Mr. J. E. S. Ollive, Clerk to the Council, 54, Hamilton Street, Birkenhead.

Sewer, Bootle Corporation.
April 26.—For the construction of a brick sewer, about 465 yards in length, and manholes and chambers in connection therewith. Mr. J. Henry Farmer, Town Clerk.

Sewer, Glasgow Corporation.
May 2.—For the work necessary in the construction of the sewer extending from McNeil Street to Rutherglen Road. See advt. in last issue. Mr. John Bowers, Town Clerk.

Sewers, Bromley R.D.C.
May 5.—For the construction of the following works:—8,013 lineal yards of 9in. stoneware pipe sewer; 1,928 lineal yards of 12in. stoneware pipe sewer, together with manholes, flushing tanks, and other works in connection therewith. Mr. Edward Haslehurst, Clerk to the Council.

Steam Generator, Stockport Corporation.
April 26.—For the supply of one 500-k.w. steam generator. Mr. Robert Hyde, Town Clerk.

Street, &c., Works, Hull Corporation.
April 28.—For certain works of sewering, macadamising, paving, flagging, &c., in Bankside, Ella Street, Salisbury Street, and Castle Street. Mr. A. E. White, City Engineer.

Street Repairing, Wanstead U.D.C.
May 3.—For making up the street known as Dover Road. Mr. William Blewitt, Clerk to the Council.

Streets, Southend-on-Sea Corporation.
May 4.—For the making up of Station Road and Whitefriars Crescent. Mr. William H. Snow, Town Clerk.

Street Works, Ventnor U.D.C.
May 3.—For the work necessary in connection with the sewering, levelling, paving, metalling, and channeling of Beaconsfield Road. Mr. Robert M. Barr, Clerk to the Council.

Street Works, Radcliffe U.D.C.
April 25.—For the labour required in draining, paving, edging, flagging, &c., of Milltown Street. Mr. S. Mills, Clerk to the Council.

Street Works, Prestwich U.D.C.
May 1.—For the carrying out of private street improvements. Mr. Lewis A. Orford, Clerk to the Council.

Stores, Dundee Town Council.
April 24.—For the supply of iron and ironmongery, paints, oils, &c. Mr. Peter Fisher, Manager, Tramway Office.

Stores, Portsmouth Corporation.
May 1.—For the supply during the next 12 months of ballast, Portland cement, oils, timber, fodder, general ironmongery, and other stores connected with the tramways. See advt in this issue. Mr. W. R. Spaven, General Manager, Town Hall.

Stores, Metropolitan Water Board.
May 2.—For the supply of boiler fluid, brushes and brooms, cotton waste, iron and steel, sluice valves, &c., for the ten months ending 31st March, 1906. Mr. A. B. Pilling, Clerk to the Board.

Tea, Islington Guardians.
April 26.—For the supply of 9,000lbs. of blended tea, at 1s. 3d. per lb., to be delivered in quantities of 3,000lbs. per month at the St. John's Road Workhouse, Upper Holloway. Mr. Edwin Davey, Clerk.

Turret Clock and Case, Camberwell Borough Council.
April 29.—For an English-made turret time-piece clock, with two 3ft. 6in. dials; for a clock case, to be made of English oak; and for fitting up said clock in case standing out from external wall bracket, at Old Kent Road Baths. Mr. C. William Tagg, Town Clerk.

Uniforms, Cape Colony Government.
May 10.—For the supply during the five years commencing on July 1, 1905, of uniforms for the police in the Cape Colony. The Agent-General, No. 100, Victoria Street, Westminster, S.W.

Watering, Alderley Edge U.D.C.
May 1.—For watering roads in its district for twelve months from May 1, 1905. Mr. Harold Sheldon, Surveyor.

Water Van, Littlehampton U.D.C.
May 3.—For the supply and delivery of a strong, well-made watering van, having galvanised-iron body holding not less than 450 gallons, and fitted with valve and other parts complete, with all modern gearing. Mr. Arthur Shelley, Clerk to the Council.

Waterworks, Edinburgh Water Trustees.
April 27.—For the construction of rough settling tanks with earthern walls, at the side of the River Esk, near Auchencorth. Mr. William Boyd, 12, Giles Street, Edinburgh.

Appointments Vacant.

Assistant Clerk, Metropolitan Water Board.
April 29.—As assistant committee clerk. Salary £140 a year to commence. See advt. in last issue. Mr. A. B. Pilling, Clerk to the Board, Savoy Court, Strand, W.C.

Assistant Nurse, Christchurch Guardians.
April 28.—Salary £25 a year, rising to £30, with rations, furnished apartments, &c. Mr. A. Druitt, Clerk.

Assistant Relieving Officer, Shoreditch Guardians.
April 25.—Salary £110 a year, rising to £125. Mr. Robert Clay, Clerk to the Guardians, 213, Kingsland Road, N.E.

Borough Accountant, Stratford-upon-Avon Town Council.
April 26.—Salary £200 a year. Mr. Robert Lunn, Town Clerk.

Borough Surveyor, Eastbourne Corporation.
May 1.—Salary £450 a year, rising to £600. See advt. in this issue. Mr. H. West Fovargue, Town Clerk.

Caretakers, Penistone Hospital Committee.
April 24.—Man and wife at the Infectious Hospital, Hoyland Moor. Joint wages a guinea per week, with apartments and rations found. Mr. William Dransfield, Clerk to the Committee.

Children's Attendant, Edmonton Guardians.
April 25.—A children's receiving ward attendant, at the workhouse, Chase Side, Enfield. Will be required to assist with needlework. Salary £25 a year, rising to £28, with board, lodging, and washing, but no uniform nor beer. Mr. F. Shelton, Clerk, Lower Tottenham.

Clerk of Works, Margate Corporation.
May 2.—As above in the borough surveyor's department; salary two guineas a week. Mr. Edward Brooke, Town Clerk.

Clothing Storekeeper, Chorlton Guardians.
May 1.—Single or widowed woman as above, at the workhouse, Withington; salary £25 a year, rising to £30, with residence, rations, &c. Mr. David S. Bloomfield, Clerk, Union Offices, All Saints', Manchester.

Cook, Malden Guardians.
April 25.—Salary £25, in addition to board, lodging, washing, and beer money. Mr. Alfred W. Freeman, Clerk to the Guardians.

Cook, South Stoneham Guardians.
April 24.—Single woman or widow without encumbrance as above; salary £30, rising to £35 a year, with board, lodging, and washing. Mr. E. T. Westlake, Clerk, 20, Portland Street, Southampton.

Cook (Man), Greenwich Guardians.
April 24.—At the Grove Park Workhouse, Lee; salary £25, rising to £30, with residence and rations (no beer or allowance in lieu thereof). Mr. Samuel Saw, Clerk.

Cook, Hollingbourn Guardians.
April 27.—Wages £20 a year, rising to £25. Mr. H. J. Bracher, Clerk, 33, Earl Street, Maidstone.

Deputy Town Clerk, Warrington Corporation.
May 1.—Candidates must be admitted solicitors; commencing salary £175 a year, rising to £250. Mr. J. Lyon Whittle, Town Clerk.

Director of Education, Rhondda U.D.C.
May 1.—Salary £400 a year. See advt. in this issue. Mr. W. P. Nicholas, Clerk to the Council.

Examiner in Navigation, Local Marine Board of London.
May 5.—As junior examiner; salary £200 a year, rising to £250. The Secretary, Dock Street, E.

Foster Mother, Hull Guardians.
April 28.—For a scattered home accommodating 11 children; salary £20 a year, rising to £25. Mr. Robert H. Winter, solicitor, St. Mary's Chambers, Lowgate.

General Servant, Medway Guardians.
April 25.—To act as above, and to be able to train girls for service. Mr. A. Reynolds Norman, Clerk.

Head Master, London City Corporation.
May 20.—As first or head master of the City of London School; commencing salary £1,000 a year. The Secretary, Victoria Embankment, E.C.

Home Sister, Leeds Guardians.
April 28.—At the infirmary in Beckett Street; salary £36 a year, with lodgings, rations, washing, and materials for uniforms. Mr. James H. Ford, Clerk to the Guardians.

Inspector of Nuisances, Great Torrington Town Council.
April 24.—Salary £20, with the addition of £2 10s. for duties under the dairies, cowsheds, and milkshops orders, and 10s. as inspector under the Petroleum Acts. Mr. George M. Doe, Town Clerk.

Inspector of Nuisances, Uxbridge R.D.C.
April 26.—Salary £100 a year, inclusive of all expenses except stationery and postage, but an office will be provided. Mr. Charles Woodbridge, Clerk to the Council.

Inspector of Nuisances, Haltwhistle R.D.C.
April 25.—Salary £80 a year. Mr. Thomas Dryden, Clerk to the Council.

Library Assistant, Deptford Borough Council.
April 27.—A lad 15 years of age or more as assistant at the Council's temporary public library; salary 10s. a week. Mr. Vivian Orchard, Town Clerk.

Master and Matron, Hitchin Guardians.
May 6.—Applicants must be husband and wife. Salaries: master, £70 a year; matron, £45; together with the usual emoluments. Mr. A. E. Passingham, Clerk.

Master and Matron, Dorking Guardians.
April 26.—Must be man and wife; joint salary £100 a year, with rations, furnished apartments, and other residential emoluments. Mr. William James, Clerk, 35, High Street.

Medical Officer, Auckland R.D.C.
May 17.—As medical officer of health for its district; salary £350 a year, rising to £500. Mr. Sam Adams, Clerk to the Council.

Night Nurse, Manchester Guardians.
April 26.—Must hold certificate in midwifery. Mr. James Macdonald, Clerk, Poor Law Offices, New Bridge Street.

Nurse Attendant (Woman), Whitechapel Guardians.
April 26.—For alternate day and night duty at the workhouse, South Grove, Mile End Road, E.; salary £20 a year, rising to £24, with rations, lodging, washing, and uniform, and £1 a quarter in lieu of beer. Mr. F. J. Tootell, Clerk, 74, Vallance Road, N.E.

Nurse, Nuneaton Guardians.
May 2.—Salary £25 a year, with apartments, rations, washing, and £2 2s. a year for uniform. Mr. C. Blakeway, Clerk.

Porter, Hayfield Guardians.
May 1.—Salary £20 a year, with rations, apartments, and washing. Mr. A. Walker, Clerk, New Mills, near Stockport.

Porter, Strand Guardians.
April 26.—Salary £25 a year, rising to £30, with rations, residence, and uniform. Mr. A. H. Maddocks, Clerk, 15, Henrietta Street, Covent Garden, W.C.

Pupil Teachers, Carnegie Dunfermline Trust.
April 24.—Two young men, at least 16 years of age, and well educated, to be trained as instructors of English and Swedish gymnastics; salary: first year £15, second year £20, third year £25. The Secretary.

Registrar and Secretary, University College of Wales.
May 10.—Salary £300 a year. Mr. T. F. Roberts, Principal.

Sanitary Surveyor, Auckland R.D.C.
May 17.—As above, for its district; salary £250 a year, rising to £300. Mr. Sam Adams, Clerk to the Council.

School Attendance Officer, Devon Education Committee.
April 28.—For the Honiton Division; salary £65 a year, with bicycle allowance of £3. The Secretary, 50, Queen Street, Exeter.

The Associated Portland Cement Manufacturers (1900), Ltd.

The following are amongst the BRANDS of

HIGHEST GRADE PORTLAND CEMENT

Now Owned by this Company:—

"J. B. WHITE & BROS.," "HILTON, ANDERSON & CO.,"
Francis' "NINE ELMS."

The Company has unequalled facilities for delivery to any part of the Kingdom.

OFFICES: DIXON HOUSE, 72, FENCHURCH ST., LONDON, E.C.

Clerk and Assistant Storekeeper, Lambeth Guardians.
As temporary master's clerk and assistant storekeeper at the Lambeth parish schools; salary 35s. a week. See advt. in this issue. The Master, Lambeth Parish Schools.

Clerk of Works, Shoreditch Borough Council.
May 3.—To supervise the restoration work at the Town Hall; salary £3 13s. 6d. a week; engagement to be for about five months. Mr. H. Mansfield Robinson, Town Clerk.

Clerk of Works, Newton Abbot R.D.C.
April 26.—For about three months, to supervise the construction of a new reservoir and laying water mains, &c., at Chudleigh Knighton. Mr. F. Horner, Clerk to the Council.

Foreman, Longton Corporation.
May 1.—As general carbonising works foreman; wages £2 a week, with house, coal, and gas, &c. Mr. W. Langford, General Manager.

Gardeners, Weston-super-Mare U.D.C.
April 26.—Two competent men as above, to act under the Parks Superintendents, one at Clarence Park and the other at the Waterworks Estate; wages 21s. a week each, with use of lodge, and rates and taxes free. Mr. Sydney C. Smith, Clerk to the Council

Jointer, Elland U.D.C.
April 26.—An experienced jointer, used to three single mains. Mr. James Clarkson, Clerk to the Council.

Schoolkeepers, London County Council.
April 24.—Two required. At Clyde Street, Deptford; salary (for boys' and infants' school) £2 3s., and (for pupil teachers' school) 14s. 4d. a week. At Ann Street, Clerkenwell; salary £2 a week. Application in regard to first-named school to be sent to Mr. W. Buck, 2, Greenwich Road, S.E.; and, in regard to the Clerkenwell School, to Mr. B. M. Butler, Divisional Offices, Trinity Street, Liverpool Road, N.

Solicitor, London County Council.
May 8.—To be responsible generally for the conduct of the Council's legal work; salary £2,000 a year. M. G. L. Gomme, Clerk to the Council.

Superintendent Nurse, Strood Guardians.
April 25.—Salary £40 a year, with apartments, rations, washing &c., but no beer nor money allowance in lieu thereof. Mr. J. E. Povey, Clerk to the Guardians.

Surveyor, Cheshire County Council.
April 25.—Quantity surveyor, to prepare the quantities, &c., for new school, estimated to cost about £13,000. Mr. Walter Taylor, Technical School, Sale.

Surveyor, Haltwhistle R.D.C.
April 25.—Salary £80 a year. Mr. Thomas Dryden, Clerk to the Council.

Teachers of Domestic Subjects, London County Council.
April 26.—As above, in elementary schools. Salary £70 a year, rising to £112. Mr. G. L. Gomme, Clerk to the Council.

Veterinary Surgeon, Leeds Corporation.
May 3.—To undertake, under the directions of the Medical Officer of Health, the duties of chief meat inspector and inspector of cows and cowsheds; salary £250 a year. Mr. Robert E. Fox, Town Clerk.

Ward Attendant, Tadcaster Guardians.
April 26.—Services of a man as night attendant at workhouse; salary £20 a year, with residence, rations, washing, &c. Mr. J. A. Bromet, Clerk.

Ward Assistant, Manchester Guardians.
April 26.—As assistant superintendent of the wards for male imbeciles and epileptics at the workhouse at Crumpsall; salary £30 a year, rising to £35, together with rations, washing, lodging, and uniform. Mr. James Macdonald, Clerk.

TENDERS WANTED
(Continued.)

Boundary Walls, Macclesfield Guardians.
May 1.—For the erection of the proposed new boundary walls at the workhouse. The Clerk to the Guardians.

Boilers, Edinburgh Corporation.
May 8.—For supplying water-tube boilers in connection with the electricity supply works. Mr. Thomas Hunter, Town Clerk.

Bridge, Carmarthen R.D.C.
May 5.—For the erection of a stone bridge at Cwmyglo, Llanarthney. Mr. John Saer, Clerk to the Council.

Bridge, Holywell R.D.C.
April 28.—For the erection of a new bridge and approaches over the River Alyn at Rhydymwyn, in the county of Flint. Mr. P. Harding Roberts, Clerk to the Council.

Bridge, Worcester County Council.
May 1.—For the rebuilding of the superstructure of Starford Bridge, having a span of about 98ft. over the River Teme, in the parishes of Starford and Shelsley Kings. Mr. J. H. Garrett, Bridge Warden, Shirehall, Worcester.

Coal, Metropolitan Water Board.
May 2.—For the supply of 4,000 tons of best Welsh washed nuts. Mr. A. B. Pilling, Clerk to the Council, Savoy Court, W.C.

Coal, Sandwich Borough Council.
April 27.—For the supply of 200 to 300 tons of Griff, Portland, Hucknall, or Bestwood hand-picked hard steam coal, to be delivered at the waterworks pumping station, Wednesborough. The Town Clerk.

Conveniences, Manchester Parks Committee.
April 28.—For the erection of set of above, at Brookdale Park. The City Architect, Town Hall.

Cranes, London County Council.
May 16.—For the manufacture, delivery, and erection of three 10-ton overhead travelling hand cranes at its sub-stations at Streatham, Battersea, and Wandsworth. Mr. G. L. Gomme, Clerk to the Council.

Crane, Wimbledon U.D.C.
April 28.—For the supply and erection of a 15-ton overhead hand travelling crane at electricity works. The Chief Electrical Engineer, Durnsford Road.

Dredging, London County Council.
May 16.—For certain dredging to be executed in the river Thames, in front of the Crossness Outfall Works, Erith, Kent. Mr. G. L. Gomme, Clerk to the Council.

Ducts, London County Council.
May 16.—For the manufacture and delivery of 750,000 stoneware ducts for electric cables. Mr. G. L. Gomme, Clerk to the Council.

Electrical Cars, Bournemouth Town Council.
April 29.—For the supply of 11 electric cars. The Town Clerk.

Furniture, Bradford Education Committee.
May 1.—For supplying furniture for the art school. The Secretary, Education Offices, Manor Row.

Furniture, Sedgefield R.D.C
May 10.—For the supply of articles required in furnishing the new fever hospitals at Sedgefield. Mr. Alfred Appleton, Union Offices.

Granite, Romford U.D.C.
April 27.—For supplying 1,640 tons of blue Guernsey granite, broken to 1½-in. cube. Mr. Charles T. King, Clerk to the Council.

Granite, St. Noets U.D.C.
April 27.—For the supply of about 1,000 tons of broken granite, and 50 tons of broken iron slag. Mr. John Edey, Borough Surveyor.

Granite, Thame U.D.C.
April 26.—For the supply of 1,130 tons of broken granite, and 150 tons of coarse granite chippings. Mr. William Parker, Clerk to the Council.

Granite, Gildersome U.D.C.
April 28.—For the supply of 565 tons of 2¼-in. broken Leicester granite, delivered at Gildersome, G.N.R., as required. Mr. Harold B. James, Clerk to the Council.

Hauling, Woodbridge R.D.C.
May 9.—For hauling, by horse, traction engine, or motor lorry, of from 2,000 to 3,000 tons of road material from Wilford Bridge, 1,000 to 2,000 tons from Levington Creek, 300 tons from Boyton Dock, and 500 tons from Nacton Hard, to the various parishes in the district. Mr. H. E. Kell, Clerk to the Council.

Iron Building, Bradford Education Committee.
May 1.—For the taking down of the wood and iron school building at Westfield, Wyke, and re-erecting the same in the Greengates school-yard. The Secretary, Education Office, Manor Row.

Materials, Normanton U.D.C.
April 27.—For the supply of stone flags, kerbs, channels, stone setts, granite and limestone road materials, for twelve months from April 1st. Mr. C. B. L. Fernandes, Clerk to the Council.

Motor Coach, Australian Government.
May 8.—For the supply and delivery of a petrol-driven railway motor coach, to carry eight first and twelve second-class passengers. Mr. H. Allerdale Grainger, Agent-General for South Australia, Threadneedle House, Bishopsgate Street Within, E.C.

Night-Soil Removal, Halesowen R.D.C.
May 3.—For the removal of house refuse from premises, and cleansing of earth closets, cesspools, &c. Mr. E. H. Grove, Clerk to the Council, Great Cornbow, Halesowen.

Oil, Manchester Corporation.
May 10.—For the supply of oil for the manufacture of carburetted gas. See advt in this issue. Mr. William Henry Talbot' Town Clerk.

Painting, &c., Fulham Guardians.
May 3.—For painting, distempering, general repairs, &c., at the infirmary in the Fulham Road. Mr. Thomas Worlock, Clerk, St. George's Hall, Mount Street, W.

Paving, Sewage Works, &c., Rhymney U.D.C.
May 1.—For various works and materials in connection with above. Mr. W. Lloyd Marks, Surveyor.

Paving, Worcester County Council.
May 12.—For supplying and laying about 3,000 super yards of concrete slab paving at Sparkhill and Hay Mills, in the parish of Yardley. Mr. J. H. Garrett, Surveyor, Shirehall.

Portland Cement, Torquay Town Council.
May 1.—For the supply of 1,000 tons of best Portland cement, required for the reservoir works. Mr. Samuel C. Chapman, Water Engineer, Town Hall Chambers.

Purifying Plant, Tyldesley U.D.C.
May 1.—For alterations to purifying plant, and the erection of sheds over same. Mr. W. J. Matthews, Clerk to the Council.

Roadwork, &c., London County Council.
May 8.—For the roadwork, platelaying, and paving, &c., required for the construction, for electrical traction on the overhead trolley system, of the short length, equivalent to about ¾ of a mile of single track of authorised tramway in Archway Road, Highgate, between the Archway Tavern and the Highgate Tavern, in the metropolitan borough of Islington. Mr. G. L. Gomme, Clerk to the Council.

School Works, Denbighshire Education Committee.
April 29.—For repairing the playground and providing and fixing in the infants' room at Ruabon Ponkey Council School, Strapp's patent sliding partition. Messrs. Evans and Roberts, Education Offices, Ruthin.

Sewage Works, &c., Salisbury Corporation.
May 1.—For the laying of cast-iron pipe and earthenware pipe sewers, and for the construction of a screening chamber, &c. Mr. Francis Hodding, Town Clerk.

Sewering, Paving, &c., Luton Town Council.
April 27.—For sewering, paving, and other works of private improvement in Smart Street. Mr. George Sell, Town Clerk.

Stables, Gateshead Corporation.
April 27.—For the erection of stables at Tyne Road East. Mr. N. Percy Pattinson, Borough Surveyor.

Waterworks, Kanturk R.D.C.
May 2.—For the execution of works in connection with above. Mr. T. Guiney, Clerk to the Council.

Waterworks, Wareham and Purbeck Guardians.
May 3.—For cast-iron water mains, laying-on from the town supply, and providing and fixing hydrants for fire-extinguishing purposes at the workhouse. Mr. E. S. Clark Union Offices, Wareham.

Municipal Officers' Guide to Contractors, &c.

ASPHALTE.
The Limmer Asphalte Paving Co., Ltd.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
Galloways Ltd.,
Manchester.

BUILDERS' & SANITARY GOODS.
Young & Marten, Ltd.,
Stratford, E.

CALORIFIERS.
Royles Ltd.,
Irlam, near Manchester.

CARTOONS.
Specialists in Photo.-Litho,
Photo-Copies, and Sun Prints,
Vacher & Sons. Westminster.

CONDUITS.
The Conduit and Insulation Co., Ltd.,
Riverside Road,
Summers Town, S.W.

CONDUITS
Simplex Steel Conduit Co., Ltd.,
80, Digbeth, Birmingham.

CONDUIT.
The New Brotherton Tube Co., Ltd.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. Summerscales & Sons, Ltd.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
Horsfall Destructor Co., Ltd.,
Leeds.

DESTRUCTORS.
Meldrum Bros.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. Defries & Sons, Ltd.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
British Thomson-Houston Co., Ltd.,
Rugby.

ELECTRIC LIGHTING.
National Electric Construction Co., Ltd.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
British Thomson-Houston Co., Ltd.,
Rugby.

EXPANDED METAL.
New Expanded Metal Co.,
York Mansion, York Street,
Westminster.

FIREPROOFERS OF ALL TEXTILE FABRICS.
Armfield & Sons,
54, Ebury Street, S.W.

FLOORING.
Acme Flooring & Paving Co, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GARDEN FURNITURE.
S. Clark & Co.,
Compton Works, Canonbury Road, N.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
Preston Granite Concrete Co., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
Acme Flooring & Paving Co. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. Summerscales & Sons, Ltd.,
Phœnix Foundry, Keighley.

MAYORAL ROBES.
Ward & Maconie,
15, Hanover Street, London, W.

MOTOR OMNIBUSES AND OTHER MUNICIPAL VEHICLES.
Straker & MacConnell, Ltd.,
27A, Old Bond Street, London, W.

PAVING.
Acme Flooring & Paving Co. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
Robt. J. Cook & Hammond, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

SANITARY FLOOR POLISH.
Ronuk, Limited,
Portslade, near Brighton.

STAIR TREADS.
Wm. Gooding,
North Road Works, Holloway, London, N.
Telephoue No. 1633 North.

STEAM ENGINES, ALL TYPES.
Ransomes, Sims & Jefferies, Ltd.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
Wm. Griffiths and Co., Ltd.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
The British L. M. Ericsson Mfg. Co., Ltd.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
The C.A.S. Punch & Ticket Co., Ltd.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
Ticket Punch & Register Company,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
The Hardy Patent Pick Company,
Sheffield.

TRAMWAYS.
Dick, Kerr & Co., Ltd.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. White & Co., Ltd.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
Mr. A. A. Green.
1c, Grosvenor Mansions,
Victoria Street, London. S.W.

TYPEWRITING and DUPLICATING.
Miss Maude Gatliffe,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
James Keith & Blackman Co., Ltd.,
27, Farringdon Avenue,
London, E.C.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

WHICH IS STEADILY GROWING IN

CIRCULATION AND INFLUENCE.

PHENOZONE
SOAP

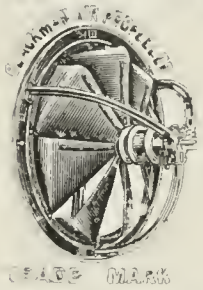
Has been proved to be the most efficient Cleanser for Mosaic and Tesselated Pavements, Marble Floors, Swimming and Slipper Baths, &c., after several years' use in numerous Public Baths, Electricity Stations and other Establishments.

"PHENOZONE SOAP," being in powder, is easy to use; it is also a strong, disinfectant.

SAMPLES FREE.

PHENOZONE SOAP CO.,
Wandsworth, London, S.W.

BLACKMAN
ELECTRIC FANS.

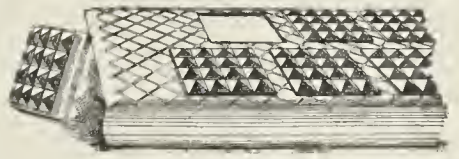


GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

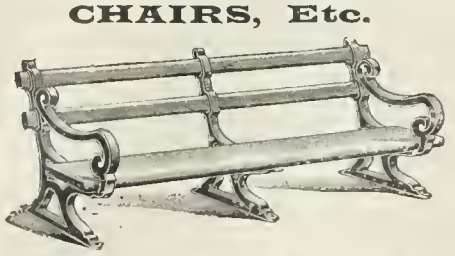
20 Gold Medals & Other Awards. Prize Medal Sanitary Institute.

W. GOODING,
Manufacturer of the Patent
Interchangeable Rubber Tread.



For Institutions and Public Buildings.
These Treads Consist of a Metallic Keeper with Pieces of Rubber which Form the Wearing Surface and can be Renewed in a few minutes.
North Road Works, North Road, Holloway, London, N.
Telephone No. 1633 North.

OUTDOOR SEATS
CHAIRS, Etc.



S. CLARK & CO., COMPTON WOR KS
Canonbury Road, Highbury Road, London, N.
Contractors to the London County Council, th Glasgow Corporation, etc., etc.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM

Edited by ROBERT BLATCHFORD.

You should read **"THE CLARION"** for reliab information as to

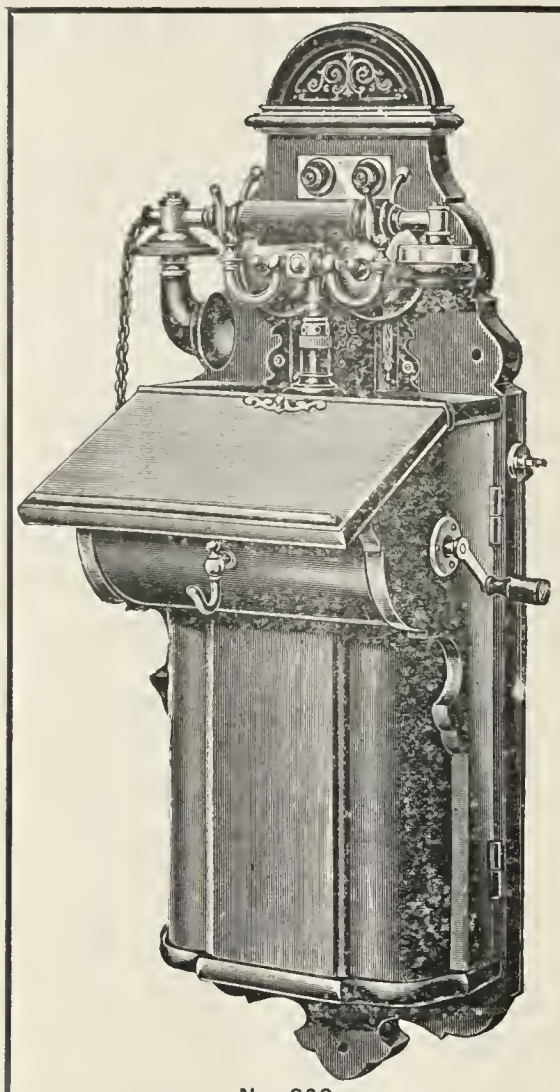
MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century,

You Must Read **"THE CLARION."**

Send for specimen copy to **"THE CLARION"** Office,

72, FLEET STREET, LONDON, E.C.



No. 828.

MUNICIPAL TELEPHONES

For PRIVATE & PUBLIC EXCHANGES.

QUALITY,

EFFICIENCY,

AND

DURABILITY.

No. 867.

THE BERLINER TELEPHONE MANUFACTURING COMPANY,
200, UPPER THAMES STREET, LONDON, E.C.

The St. PANCRAS IRONWORK Co. Ltd.

Fire Escape Staircase erected at the Berkeley Hotel, Piccadilly, London, W.

FIRE ESCAPE STAIRCASES

STRAIGHT & CIRCULAR IRON STAIRCASES

LIGHT IRONWORK in all its departments has for many years received the constant consideration and careful study of Experts on our Staff. We are therefore in a position to plan and execute trustworthy work of this description with despatch and accuracy.

Catalogues sent on application.

171 ST. PANCRAS RD. LONDON N.W.

Telephone—No. 519 King's Cross. *Telegrams—"Equitation," London.*

NOW READY.

BIGGER AND BETTER THAN EVER.

The 1905 MUNICIPAL YEAR BOOK,

REVISED, ENLARGED, & IMPROVED.

Price 3/6. By post 3/11

NEARLY 700 PAGES.

PUBLISHING OFFICE: 12, SALISBURY SQUARE, E.C.

Printed and Published by EDWARD LLOYD Limited, 12, Salisbury Square, London, E.C.

352.05
MUNJ

THE MUNICIPAL JOURNAL.

No. 639.—Vol. XIV. FRIDAY, APRIL 28, 1905. REGISTERED AT THE G.P.O. AS A NEWSPAPER. TWOPENCE.

CONTENTS.

	PAGE
EXETER NEW TRAMWAYS ...	417
OFFICIAL AND PERSONAL ...	420
MUNICIPAL MUSIC	421
COUNTY COUNCILS ASSOCIATION	422
EDUCATION AND RATES	423
EDUCATIONAL NOTES	424
MARKETS PROCEDURE.—I. ...	425
HOUSING PROGRESS. (The Official Monthly Record of the National Housing Reform Council for England and Wales)	426
NOTES AND ANSWERS	427
HACKNEY AND UNEMPLOYED ...	428
NOTES AND COMMENTS:— East Ham Rate Revolt; A Powerless Government; East Ham's Case "Municipal Expenditure"; America and Municipal Ownership; Municipal "Remedies"	431 432
ROUND THE UNIONS.—IV. (St. Pancras)	433
POOR LAW NOTES	435
ELECTRICITY SUPPLY	437
TRAMWAY TOPICS	439
TRAMWAYS ANALYSES	440
EDUCATION AND THE TYPEWRITER	441
PORTLAND CEMENT (By H. K. G. Bamber, F.C.S.)	443
THE SURVEYOR AND CONTRACTOR	445, &c.

Official Advertisements.

CITY OF LONDON UNION.

FITTER, to act as assistant to the engineer, WANTED, for the Infirmary of the City of London Union, Bow Road, E. Candidates must be single or widowers without encumbrance, and not more than 45 years of age, and have had actual experience in the management of boilers and heating apparatus, also a good knowledge of electric light installations. The wages will be 18s. per week, with rations, lodging, and washing, with an allowance of £4 per annum in lieu of beer.

Candidates must apply to the Steward, any day, between ten a.m. and twelve noon.

EDWARD R. WOODWARD,
Clerk to the Guardians.

No. 61, Bartholomew Close, E.C.,
27th April, 1905.

Official Advertisements.

URBAN DISTRICT OF PENGE.

TO BUILDERS AND SANITARY ENGINEERS.

THE Council invite TENDERS for the CONSTRUCTION of an UNDERGROUND CONVENIENCE in Beckenham Road.

Plans may be inspected and Specification and Form of Tender obtained on and after Wednesday, the 3rd day of May, on application to Mr. Herbert W. Longdin, Surveyor to the Council Town Hall, Anerley, S.E., on payment of One Guinea, which will be returned on receipt of a bona fide tender.

Tenders must be delivered to me, the undersigned, not later than four o'clock on Friday, the 12th day of May, 1905, endorsed, "Underground Convenience."

The Council do not bind themselves to accept the lowest or any tender.

By order.

C. W. DOMMETT,
Clerk to the Council.

Town Hall,
Anerley Road,
Anerley, S.E.,
26th April, 1905.

BOROUGH OF BEXHILL.

TENDERS FOR LOANS.

THE Bexhill Corporation invite TENDERS for the undermentioned LOANS in respect of which sanctions of the Local Government Board have been obtained:—

£3,400 (25 years) Electric Lighting.
£900 (26 years) Sewage Works.
£375 (20 years) Parks and Pleasure Grounds.
£310 (30 years) Sewage Works.
£300 (20 years) Street Improvements.

Each Loan to be repaid by equal half-yearly instalments of Principal and Interest.

Tenders endorsed, "Tenders for Loans," to be sent to me before 20th May.

T. E. RODGERS,
Town Clerk.

Town Hall, Bexhill,
26th April, 1905.

LOANS.

A LARGE Urban District Council invite TENDERS for LOANS on the security of the General District and Poor Rates, repayable by equal half-yearly or yearly payments of Principal and Interest combined. Outstanding Balances are about equal to one year's Rateable Value.

Tenders, stating rate of Interest and inclusive cost and expenses, to be forwarded not later than the 9th day of May, 1905, addressed, "U.D.C.," 1639, "Municipal Journal" Office, 12, Salisbury Square, London, E.C.

Official Advertisements.

PORTSMOUTH CORPORATION TRAMWAYS

CONTRACT.

THE Tramways Committee invite TENDERS for the SUPPLY and DELIVERY of UNIFORMS for Inspectors, Timekeepers, Drivers, and Conductors, &c. Particulars and Forms of Tender may be obtained, and the samples may be seen, on application to the office of the General Manager, Town Hall, Portsmouth.

Sealed tenders, endorsed, "Tenders for Uniforms," to be delivered to the General Manager, Town Hall, Portsmouth, not later than 12 noon on Monday, 15th May, 1905.

The Form of Tender must include a declaration that the person making the tender pays not less than the Trade Union rate of wage, and observes the hours of labour and conditions recognised and in practice obtained by the Trade Unionists in the place or places where the work is executed.

The Committee do not bind themselves to accept the lowest or any tender, and reserve the right to accept the whole or any portion of the tender.

W. R. SPAVEN,
General Manager.

Town Hall,
Portsmouth,
28th April, 1905.

HAMMERSMITH BOROUGH COUNCIL.

ASSISTANT CLERK.

THE Borough Council invites applications for the APPOINTMENT of FIRST ASSISTANT CLERK in the Town Clerk's Office at a salary of £150 per annum, rising by annual increments of £10 to £200.

Preference will be given to candidates who have had a good general experience in the office of a public local authority. Applications must be made on a form to be obtained at my office, and, accompanied by copies of not more than three recent testimonials, must be delivered to me not later than noon on Friday, 5th May, 1905.

Personal canvassing will disqualify.

H. THOMPSON,
Town Clerk.

Town Hall, Hammersmith.

PERFECT HANDWRITING is a rare accomplishment. Our new scientific method ensures perfect penmanship; tuition by post at moderate fees; remarkable results.—Send stamp for explanatory booklet No. 62, Alston's Commercial College, 9, Grimshaw Street, Burnley.

"GUY'S HOSPITAL GAZETTE" says—

"Cadbury's is the highest type of a pure cocoa; it is most tempting to the palate, possesses high nutritive power, and is a great restorer of muscular activity."

Cadbury's Cocoa

Absolutely PURE — therefore BEST.

Dr. ANDREW WILSON says—

"Cocoa in itself is an excellent article of food, and it should be used in a perfectly pure state."

"THE LANCET" says—

"Cadbury's is the standard of highest purity."

B.T.H. ENCLOSED ARC LAMPS.

The best Commercial Value possible. Attractive in appearance, and of the finest materials throughout. Globe breakages reduced to a minimum, as they are by far the easiest lamps to trim.

WRITE FOR PAMPHLET.

THE BRITISH THOMSON-HOUSTON CO., LTD.

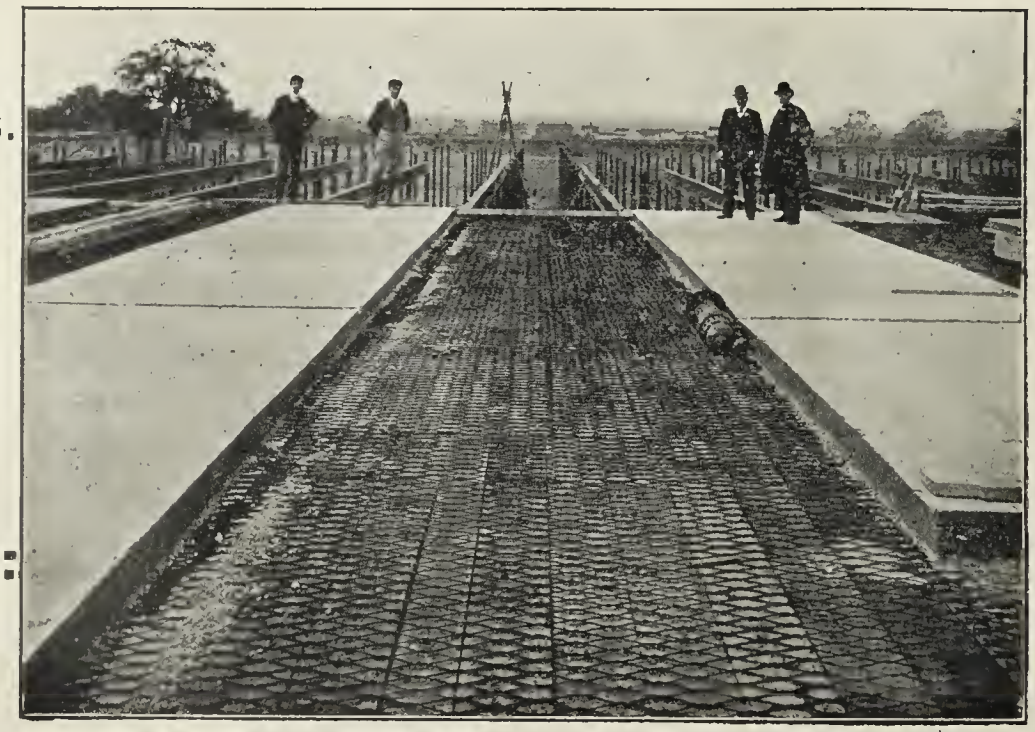
Head Office and Works: RUGBY.

B T-H

EXPANDED STEEL

For ARMOURED CONCRETE & FIREPROOF CONSTRUCTION

FOUNDATIONS.
WALLS.
FLOORS.
ROOFS.
RESERVOIRS.
SEWAGE TANKS.
CONDUITS.
BRIDGES.
GRAIN SILOS.
&c.



IT SAVES 75 PER CENT. IN BULK OF CONCRETE.

Write for Handbook on Practice, Tests, and Tables of Approved Formulæ or any other information.

Ipswich Reservoir—Expanded Steel Concrete Cover in course of construction.

THE NEW EXPANDED METAL CO., Ltd.,

Telephones— 419 Westminster, 1514 Victoria.

YORK MANSION, YORK STREET, WESTMINSTER, S.W.

Telegrams— Distend, London.

In the Press.

Price 1s. 6d. Post free 1s. 10d.

THE LONDON MANUAL, 1905.

LONDON: EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, E.C.

THE BEST JUDGES OF CIGARS

Now obtain their supplies at

BENSON'S, 61, St. Paul's Churchyard, London.

Really good Foreign Cigars at 16s., 20s,, 22s. per 100 (and upwards. Samples 5 for 1s., free by post.

STANLEY

SURVEYING AND DRAWING INSTRUMENTS.

PRICE LIST POST FREE.

GREAT TURNSTILE, HOLBORN, LONDON, W.C.

The

Municipal Journal.

No. 639.—Vol. XIV. APRIL 28, 1905

EXETER NEW ELECTRIC TRAMWAYS.

What Company Tramways Have Meant for the Citizens of Exeter. Betrayal of the People's Interests and Convenience. The Fight Which the Council Has Made, Backed By Those It Represents, to Gain Possession of the Tramways. How £58,400 Has Been Spent on the New Undertaking.

IN the opening of new electric tramways, Exeter sees the consummation of a work which has long been needed, and long anticipated. For twenty-two years the citizens have borne with fortitude a very inadequate and inefficient service of horse trams. Exeter is one of the many towns which have learned, by bitter experience, what it means to have allowed companies to get hold of the tramways. It is nearly a quarter of a century since a company was promoted for the purpose of constructing a track through the main streets of the city.

After making matters uncomfortable for everyone, and filling the citizens' minds with promises unfulfilled, the company came to grief. A syndicate acquired the undertaking, but with little better results. The service was, to a great extent, starved, the horses were a sorry lot of animals, and the track was not maintained in the condition it should have been.

So much for boasted company management! Meanwhile, the Council and the citizens had been learning their lessons. A little time before the expiration of the term of twenty-one years, over which powers had been extended, the Council was approached by two powerful companies with the object of securing the co-operation of the municipality in extending the system, and substituting electric cars for horse trams. The proposals were tempting ones, and negotiations were carried on for some months, but in the end civic enlightenment prevailed, and the Council refused to be seduced.

Then the trump card was played. One of these powerful companies promoted a Bill in Parliament, embodying a scheme for an extensive system of electric trams. But the City Council was determined never again to part with the control of its roads to an outside company, and it expressed that determination, and the fact that it would oppose the Bill which had been deposited. The company saw this was not bluff and abandoned its Bill.

The period of twenty-one years was now fast drawing to a close. Under the old company's *régime* there had been great hostility to the extension of the tramways through High Street. This was not greatly lessened, but it was recognised even by the objectors, that if the extension was to be brought about, it would be preferable that the undertaking should be in the hands of the Corporation, and at the November elections in 1900, the ratepayers, with no uncertain voice, pronounced in favour of the proposal of an electrically-equipped service, worked by the Corporation.

CENTRE POLE CONSTRUCTION, HELE ROAD.

Then the Council set about, in earnest, the matter of choosing its system. A deputation, consisting of the present Mayor (Councillor Perry), Alderman Wreford, Councillors Munro, Roberts and Ross, was appointed in 1902 to visit certain towns in England and on the Continent, and to report on the best scheme of tramways and other modes of passenger transit, including motor-'buses. The committee visited Bournemouth Southampton, Havre, Rouen, Paris, Dover, London, Birmingham, Wolverhampton, and Bristol, accompanied by the City Surveyor (Mr. Cameron), and (in respect to some of the towns) by the Electrical Engineer (Mr. Munro). It presented a voluminous report, which concluded with the recommendation that the current for the electric trams to be introduced into Exeter and suburbs should be conveyed by the overhead trolley, because of its economy and greater simplicity, and that it be adopted for all the tramways, with the exception of High Street and Fore Street. The scheme for these streets was left open for further consideration. Many residents in the main streets and other citizens favoured the introduction of the conduit system for the High Street, but eventually it was resolved to establish a uniform system.

In the Parliamentary Session of 1903, a Bill was promoted by the Council to enable it to construct and equip the new tramways and to buy out the old. High Street and Fore Street were to have trams, and at once opposition was manifested. It was a noisy but small opposition who fought vigorously before the House of Lords Committee to secure its rejection, notwithstanding that a postcard poll of the ratepayers had shown a large majority in favour of the Council's scheme. But the opposition failed, and

THE MAYOR
(Councillor Edwin C. Perry).

THE TOWN CLERK
(Mr. G. R. Shorto).

CITY ENGINEER AND SURVEYOR
(Mr. T. Moulding).

CITY ELECTRICAL ENGINEER
(Mr. H. D. Munro).

certain terms having been arranged, the Bill passed the Committee of the Lower House without any opposition. It was ultimately determined not to include the whole construction scheme in the first contract. A month or two ago terms were arranged with the Heavitree District Council for the extension of the tram lines through the main streets of the suburb, and the work is being pushed on rapidly. The track, which is now nearly completed, is 4¼ street miles in length, and consists of 2¼ miles of double line and 2⅛ miles of single line, with passing places. Double lines and interlacing lines have been constructed in the busiest thoroughfares in order to facilitate the ordinary traffic of the streets. The gauge adopted is 3ft. 6in. The rails are steel of the girder type, 6 inches in depth, and weigh 90lb. per lineal yard. The foundation for the rails and paving is constructed of cement concrete, 6 inches thick. In addition to this concrete underbed, the rails are packed up to the true alignment by fine cement concrete, averaging ¾ of an inch in thickness. The points and crossings were supplied by Messrs. Hadfields, Limited, of Sheffield, and are made of patent manganese steel. All the special work at the corners of streets, and in the car shed, was laid out at Messrs. Hadfields' works prior to being fixed in position. The road between the rails, and for a distance of 18 inches on each side of the rail, is paved with Welsh and Devonshire granite setts, with the exception of three or four streets, and in front of several places of worship, where hard wood paving is used.

The electric current is conveyed from the generating station by means of lead-covered "feeder" cables running through stoneware ducts or conduits to section pillars, each half-mile section of route being separately supplied so as to be independent of any other section. From the section pillars the current is conducted up the poles to the overhead trolley lines, which are double throughout, and are supported from sectional steel poles of great strength which are arranged as centre poles, side bracket poles, or span-wire poles, according to the requirements of the route. The lines are so arranged that the trolley-wheel runs centrally wherever feasible, but full advantage is taken of its "swivelling" power at certain points on the route. The lines are "double-insulated" throughout. All the section boxes are connected by telephone with the generating station and the car shed, and the test wires required by the Board of Trade run to the ends of all routes. Guard wires, as required by the Board of Trade, are fixed above the trolley lines wherever overhead telegraph or telephone wires might possibly fall upon them. Frogs, switches and crossings are provided on the trolley lines to correspond with those on the track below.

THE BUILDINGS.

There are at present twelve cars, built and equipped at the Preston works of Messrs. Dick, Kerr and Company. They are of the double-deck type, with a seating capacity of 20 passengers inside and 22 outside. The stairways are of the semi-reversed type, giving increased accommodation on the roof and protection from the weather on the platforms. The inside seating is of woven rattan cane, with perforated veneer backs, for cleanliness, and the outside seats are of the garden type, with reversible backs. The internal ventilation is by a special device of the makers, which is effective without creating draughts. The bottom frame of the car is built up of oak and the framing of the body is in ash. The platforms are supported upon angle steel bearers, flitched with oak. The platform steps are of the "Waller" patent folding type. The staircases are of the Preston standard non-reverse type. The interior woodwork of the car is of mahogany and oak, relieved with embossed mouldings over the side windows. Each car weighs 8½ tons without passengers, and is 26 feet long over all. They are equipped with two electric motors of 25-horse power each, and, in addition to the ordinary hand-brake, are provided with the Newell magnetic track brake, which is capable of holding a heavily-laden car upon any gradient, independently of the electric power on the line, and are further provided with an electric device, which automatically prevents a car from running backwards on a gradient when the electric power from the line is shut off. The Philipson patent lifeguard is fitted to all the cars, as also a patent folding step interlocking with the folding gate upon the platform in such a way that the step and gate open and close together. The cars are thus fitted with every device which experience has suggested for the comfort and safety of the public. They are painted in dark green and gold, with the city arms emblazoned on the side panels, and their handsome appearance is generally recognised.

The car shed and offices, situated nearly in the centre of the district served by the tramways, are of brick, with Portland stone dressings, the floors of the offices and stores being of wood blocks, fixed on breeze concrete. The roof of the shed, which is glazed with Rendle's patent glazing, is carried on steel stanchions and steel lattice girders, with light steel roof principals. The shed provides for housing fifteen cars, and comprises repair shop, smithy, paint shop, paint and oil stores, foreman's room, mess-room, and general stores, and conveniences. The offices have a committee-room manager's-room, general office, conductors'-room, strong-room, and necessary lavatory accommodation. The whole of the building is well lighted, and generally very conveniently designed. To provide for a possible enlargement the south-east side of the shed has been constructed, between the steel stanchions, of wood, which can easily be removed when an extension is found necessary.

The electric power station of the Exeter Corporation is not quite a new building, having been opened a year ago. As our illustration indicates, it is of a large and handsome design, covering a space of about 150 feet square. It is divided into bays constituting the boiler-house, engine-room, and offices respectively, with annex buildings for economisers, boiler feed pumps, &c. The chimney shaft is 155 feet high, with an internal diameter of 8ft. 6in. The boiler-house is a lofty building, 102 feet long and 55 feet wide, containing six water-tube boilers, fitted with super-heaters, capable of supplying steam for 2,700 horse-power. A steam-pipe ring on the boiler-house wall carries the steam into the engine-room, and it is so arranged that any boiler of the engine can be isolated without affecting the general supply.

THE OLD HORSE CAR.

A feature of the boiler-house is the complete system for the handling of coal and its economical combustion. The coal is delivered into shoots which convey it to an automatic filler, which is electrically driven, and conveys the coal to a series of large coal bunkers above from which it is discharged in measured amounts to the hoppers of the chain-grate mechanical stokers of the boilers. These stokers, which are electrically driven, automatically carry the coal into the furnaces and discharge the ashes and clinker into the basement, whence a gravity bucket coal conveyer removes them to an ash bunker.

The engine-room is a lofty and well-lighted building, 102ft. long by 45ft. wide, lined throughout with glazed bricks, with a floor of "terrazzo" marble paving to ensure the utmost cleanliness. Galleries are provided to give immediate access from the various offices. The room is spanned by an overhead travelling crane to handle parts of machinery up to ten tons in weight for erection or repairs. There are at present installed four steam alternators of a total capacity of 1,300 kilowatts, which can deal with the supply to 50,000 lamps, or their equivalent. One 200 kilowatt steam-driven generator is provided for the tramway supply, and also a motor generator of equal capacity, which takes current from the alternators and converts it into current suitable for the tramways. Each steam alternator consists of a high speed vertical steam engine, with forced oil lubrication, direct coupled to a two-faced Westinghouse alternator and exciter. The exhaust steam leaving the engines is dealt with by jet condensers. The whole station has been carefully designed on the most modern lines, and is capable of extension when necessary.

The total cost of the whole work is £58,400, and this is divided up as follows:—Track, including wood paving, £34,000; overhead equipment, £4,700; feeder cables, £3,000; cars, £7,000; car shed, &c., £5,700; and additional generating plant, £4,000.

The accomplishment of this creditable scheme owes much to the Mayor (Councillor Edwin C. Perry), who has given untiring energy and personal attention to the work in all its stages in his capacity as Chairman of the Tramways Committee. Recognition of the good work done should also be extended to the Town Clerk (Mr. Geo. R. Shorto), and to the engineers: The City Engineer and Surveyor (Mr. Thomas Moulding, A.M.Inst.C.E.), City Electrical Engineer (Mr. H. D. Munro, M.Inst.C.E.), and the Consulting Engineer (Mr. J. E. Waller, M.Inst.C.E.).

The contractors for the tramways are Messrs. Dick, Kerr and Co., London and Preston. The car shed has been built to the designs of the City Engineer, the contractor being Mr. William Blake, of Plymouth. The generating plant has been installed under the superintendence of the City Electrical Engineer, the contractors being the British Westinghouse Company, of London and Manchester, and Messrs. Bruce, Peebles and Co., of Edinburgh.

At the opening ceremony the contractors presented the Mayor with a silver lever, and the Mayoress received a magnificent bouquet. Addressing the crowd from the top of a car, after the trial run, his worship said he was thankful to say that that day they had driven the horse trams off the track, and he trusted the citizens would see them no more. (Cheers.) Exeter, by the inauguration of that splendidly-equipped tram service had placed itself in the van of progress, and had brought itself into line with all the principal cities and towns of the United Kingdom. (Applause.) He knew there might be some within the sound of his voice who had doubted the wisdom of an electrically-equipped tram service through one of their ancient thoroughfares. He believed that they fought their battle with great earnestness, believing they were doing that which was right, but he felt sure that when the service was completed, and was seen to its fullest advantage, the great benefits derived by the trams would be so apparent to everybody, and to them especially, that they would one and all agree that it was a good thing for the City of Exeter. (Cheers.) It was a matter of congratulation that these were their trams, that they did not belong to any band of capitalists, and that the advantages to be derived from them would be shared by everybody in common. (Applause.) In declaring the trams open he wished them success, and desired the prosperity and happiness of the people of that ancient and ever faithful city. (Cheers.) A dinner was given in the evening.

Replying to the toast of the evening, "Success to the Exeter Corporation Tramways," proposed by Mr. J. Stocker, J.P., the Mayor, who had an enthusiastic reception, said Exeter owed a deep debt of gratitude to Mr. Waller, who rendered such yeoman service in the House of Lords, and who had always been at their service since; to Mr. Moulding, to Mr. Munro, and to the very able firm of contractors (Messrs. Dick, Kerr and Co.), and their representatives. (Applause). An alderman of Worcester told him only a few weeks ago that in the first eleven months of the trams in that city the Corporation took £15,000, and he thought that would give some idea that there was money in the Exeter trams.

Other toasts followed.

THE ELECTRIC CAR.

OFFICIAL & PERSONAL.

GLASGOW TOWN CLERKSHIP.

Heated Meeting of the Council.

The question of the town-clerkship was again under discussion at last Thursday's meeting of the Glasgow Town Council. A month ago, our readers will recollect, the committee appointed to consider applications for the post recommended the names of Mr. R. M. Prescott, town-clerk of Fulham, and Mr. Bowers, the present acting town-clerk; but on the day on which the matter was to have been considered by the Council Mr. Prescott withdrew his application, and a new committee was nominated to deal with the matter.

At Thursday's meeting of the Town Council, Bailie Burrell moved, in terms of a minute of the special committee, that the position should be re-advertised, at a salary of not less than £2,000 per annum. Mr. W. F. Anderson moved an amendment to the effect that, instead of advertising, the Council should resolve to appoint Mr. R. M. Prescott as town-clerk, Parliamentary solicitor, and secretary of the corporation, at a salary of £1,500 per annum, reserving power to the Council to delegate the law agency.

Mr. Scott Gibson thereupon raised the question of competency, maintaining that no such amendment could be proposed until the resolution of the Council that one man should be appointed, and that the position should be advertised, was rescinded. The Lord Provost ruled that, under the resolution of the last meeting to begin *de novo* all former resolutions were abrogated.

A prolonged discussion ensued, in the course of which Mr. Scott Gibson repeatedly refused to submit to the ruling of the chair. An adjournment of a quarter of an hour took place, with a view to allow the heated feeling which had been generated to be allayed. When the sitting was resumed, the discussion became still more acrimonious. Mr. Scott Gibson declaring that he intended to continue his course of obstruction, so as to prevent the appointment of Mr. Prescott.

The Lord Provost thereupon stated that in these circumstances he had no alternative but to leave the chair. His lordship accordingly left the chair, and the meeting terminated.

THE BURNLEY CHIEF CONSTABLESHIP.

The ten selected applicants for the Burnley Chief Constableship appeared before the Watch Committee last week, when the number was reduced to four, viz.:—

John Robert Casburn, Chief Constable of Grantham.

James H. Galloway, Chief Inspector of Cambridge.

William Henry Smith, Chief Constable of St. Albans.

John Henderson Watson, Chief Constable of Congleton.

The final appointment will probably be made next week. The salary is £359, rising to £400.

LEEDS SEWERAGE ENGINEERSHIP.

The Leeds Corporation Sewerage Committee met last week for final revision of the list of applications for the office of sewerage engineer to the city, to which is attached a salary of £1,000 per annum.

It was decided to recommend for the appointment Mr. George Adam Hart, Chief Assistant Engineer of the Birmingham Tame, and Rea Drainage Board. Mr. Hart, who is now in his thirty-fifth year, has had some fifteen years' experience as a civil engineer, and for the last seven years has been engaged exclusively in designing and constructing works for sewage disposal and sewerage for the municipalities of Salford, West Hartlepool, and Birmingham and district.

The Birmingham, Tame, and Rea Drainage Board, to which he has been assistant engineer for five years, is the authority responsible for the construction and provision of all works required to purify the sewage of the city of Birmingham and eight surrounding authorities, the total area of the combined district covering 90 square miles, and having a population of 850,000.

GLOUCESTER'S NEW MEDICAL OFFICER.

A meeting of Gloucester City Council was held at the Guildhall, Gloucester, on Wednesday, the only business of importance being the appointment of a medical officer of health to fill the vacancy caused by the retirement of Dr. Campbell.

Two candidates had been selected—Mr. Leslie Millburn, bacteriologist to the County Council of the West Riding of Yorkshire, and Mr. William Hope.

The City High Sheriff proposed the appointment of Mr. Hope, who, he said, had been in practice in Gloucester fifteen years, and was not likely to be a bird of passage.

After discussion, the proposition was carried by 25 votes to 9, and Mr. Hope was declared elected.

LOCAL TAXATION IN IRELAND.

Returns showing the local taxation in Ireland for the year 1903-4 have been compiled at the desire of the Lord-Lieutenant by the Local Government Board for Ireland, and issued in the form of a Blue-book.

It is shown that the receipts for the purposes of local government during the year, excluding loans and grants, and making the necessary deductions on account of duplicate entries, amounted to £4,048,500, an increase of £116,841, as compared with the preceding year. Of this amount, 74 per cent. was raised directly by the taxation of lands, buildings, &c., while the remaining 26 per cent. consists of sums derived from tolls, fees, stamps, and dues, and of various miscellaneous items of local revenue applied towards expenditure during the year; £2,993,308 was received as rates on lands, buildings, &c.; £497,666 as tolls, fees, stamps, and dues; and £557,526 as other receipts, all showing increases as compared with the corresponding amount in the preceding year.

The aggregate of these three branches of revenue may be regarded as the amount of the local taxation of 1903-4; but it is to be noted that 14 per cent. thereof (other receipts) was not raised by direct taxation, and that 12 per cent. came from a class of local taxes (tolls, fees, stamps, and dues), which is obviously restricted in range of operation, and to a great extent represents payment for immediate benefit received. A sum of about £133,022 included in other receipts (3 per cent of the total receipts) was derived from the profits of undertakings in the hands of local authorities, such as gas, electric light, and water undertakings.

The amount produced by rates, with the £99,917 raised in respect of water, represents an average of 3s. 11½d. in the pound on the rateable valuation of Ireland, at the beginning of the year (£15,079,013), and an increase of 13s. 6d. per head of the population, as estimated at the middle of the year, viz., 4,413,655. During the year, a net sum of £3,348,901 obtained from local sources, including rates to the amount of £2,941,802, was applied towards the expenditure of counties and towns. This was supplemented by grants and payments from the Local Taxation (Ireland) account to the extent of £1,277,356, so that 72 per cent. of the revenue of county and town authorities came from local sources, and 28 per cent. from grants provided by statute.

On an average, the grants were equivalent to 1s. 8¼d. per pound of rateable value and 5s. 9½d. per head of estimated population. The expenditure of the local bodies charged to revenue and capital during the year amounted to £6,555,979, being £50,054 less than their total receipts from all sources. Of this expenditure, a sum of £885,658, or 13.5 per cent., was applied to the discharge of borrowed moneys and the payment of interest on such moneys.

The indebtedness of the local bodies on account of loans and stock at the end of 1903-4 amounted to £16,008,311. Of this, £7,013,275 appertained to municipal authorities.

LAND VALUES BILL.

TO SOLVE LABOUR PROBLEM.

(FROM A CORRESPONDENT.)

The Bill of last year, with only one new clause added, exempting public gardens and "lung areas" from site value taxation, has again passed the second reading in the House of Commons, this time by a majority of ninety, being two to one in a very full house.

There are many people who, while thoroughly in sympathy with land law reform, despair of the assent of the House of Lords ever being given to any Bill of the kind. There are others who are inclined to look upon these proposals as mere assessment reform, and to under-rate their effect upon the well-being of the community. But we must not forget that these are financial proposals, and it will be quite easy for the new Liberal Government to introduce in the Budget an imperial tax on land values and make State subventions to local authorities for national purposes that are locally administered, *e.g.*, maintenance of the poor, education, lunatic asylums, police, main roads, etc. All these are objects of a national character. The allocation of subventions should take into consideration not only relative needs but relative ability to bear burden on the part of the rating areas respectively, so as to secure an equalisation of rates for national purposes.

Though these proposals are for the rating of land values, it by no means follows that it is a mere question of increased assessments or of rating. It is far more than this. Primarily, it is neither a question of reducing rates nor of providing new sources of public revenue. There is no great source of new revenue in land values. With regard to reducing rates, it is true that the rates in the Urban District of Finchley will fall 1s. 11d. in the £; that in the Municipal Borough of Hornsey the rates will fall 4d. in the £. But in the large Metropolitan Boroughs of Fulham and Islington the rates would only be reduced 2d. and 1¼d. in the £ respectively by rating land values. Now, considering that in Finchley this lowering of the rates would only mean relief of about 3d. a week in the case of a tenement of two rooms, what "relief" would there be to a poor man living in Islington or Fulham? Why, the relief would be infinitesimal!

In Fulham, about £300,000 every year is collected in rates. The rating of land values would add £7,900 more to the revenues of Fulham. In Islington, about £700,000 is raised by rates. The rating of land values would add £10,000 per annum to the revenues of Islington. Surely, these cannot be said to be "huge sources of untapped revenue!"

The fact is, the rating of land values is as said above, primarily neither a rating question nor a land question. The rating of land values is primarily a labour question. It has to do with the terms upon which men may obtain access to land. They can then no longer be shut out from it. Rating land values is thus needed to stimulate the demand for labour and the demand for commodities, and it will do this by stimulating production. It is only necessary that all men get the use of land and every wheel of production and trade be put in motion. We can safely affirm that rating and values will strengthen the weaker side in every bargain for wages and every bargain for opportunity to labour. It will increase the production of wealth by giving freer access to the primary means of production. This will react upon demand. It will go a great way towards solving social problems.

Great opportunity will be afforded to raise the general rate of wages. Wages will go up to the highest notch. For the first time in history since the period of the Black Death (1349), the circumstances will be again such as to put the labourer upon his feet with a power of bargaining for the highest wages that the conditions of supply and demand in his market will enable him to command. Rating land values is the true solution of the labour question.

MUNICIPAL MUSIC.

An Enormous and Little-Exploited Field of Municipal Activity is Awaiting Development. What is Being Done in Various Centres to Give the "Masses" Music. Its General Influence in the Recreation, Education, and Good of the Community. Harmony in the Slums. Musical Works Should Form a Section of Every Lending Library. Municipal Authorities Could Very Well Aid Musical Education By Subsidizing Local Societies Under Proper Conditions.

[*By Mr. J. C. B. TIRBUTT, Mus.Bac., Reading.*]

THE more one studies the subject of musical education, the more one sees that it is a subject in which municipal authorities already possess power and influence, and as this power and influence will probably considerably increase, it is well for us to carefully consider it, and in any desirable way endeavour to direct its interest to the best advantage to the art which we claim to represent.

We are all aware that all education is now largely directed—through the Education Committees—by the municipal authorities, and while the elementary education in all towns is especially under their care, the co-ordination of so-called secondary education is also receiving a large share of attention. While I do not go so far as to say that it is desirable that the details of secondary education should be entirely controlled by municipalities, it is of course evident that elementary education will be, and that in this direction the local authority will exercise an influence upon those whom we should wish to see musically more educated; and if we can direct that influence in the right way, we may in the future see better results than we have yet seen in the appreciation of good music by the "masses" in this country. As a matter of convenience, I refer now to the working classes in our towns under municipal control, as it is evident that the example must be set there; but I would remark, in passing, that what is done in the towns will soon be copied, so far as it is possible, by the county councils, which have control over the country districts.

Multiply Park Bands.

I cannot but believe that municipal authorities generally recognise to some small extent that they have an interest in this matter, although in most places it has simply been forced upon them by the demand of the people that their amusement shall be provided for, out of doors by bands in the parks and other open spaces, and indoors by organ recitals and occasional concerts. Where these have been once tried, they have usually become permanent, and where they have not been tried the authorities are beginning to think that they ought to be. But we find that in many places where the will to do something is becoming evident, there are difficulties in the way of the application of the municipal funds. Such difficulties, indeed, depend entirely upon the Acts of Parliament under which the local authorities exercise their powers, which differ according to the date and circumstances of the Parliamentary powers obtained; but while we admit these difficulties we can fairly urge that further powers should be obtained where necessary, so that what is for the good of the community may be made legally possible.

We will now examine what is already being done by some municipalities, which may be taken as representative, in different parts of the country, for which purpose I have made inquiries and obtained some authentic information, which I hope will be found to be useful and relevant. I will endeavour to summarise it as clearly and briefly as possible.

Musical Education in Liverpool.

Liverpool, having a population of over 700,000, and a rateable value of over £4,000,000, provides a city organist, at a salary of £400 per annum, who has to give three organ recitals weekly for about thirty weeks in the year. The charge for admission to these is 6d. and 3d., and the long course of recitals given by the late Mr. Best on the fine Willis organ in St. George's Hall has been worthily continued by his successor, Dr. Peace, who has told me that during the last eight years the attendance has averaged between fifty and sixty thousand. It is, therefore, obvious that these organ recitals take a considerable part in the musical education of the city of Liverpool. The City Corporation also pays bands £1,100 or £1,200 for performing in public parks during the summer months, in addition to spending a considerable sum (probably about £2,000 a year) upon its own Police Band. Besides its outdoor performances in the summer, this band has given winter concerts during 1904, where the small sums of 1d. and 3d. have been charged for admission and reserved seats respectively. The Education Committee, through its Technical Education Sub-Committee, provides for six studentships in instrumental music, tenable for three years, at the Liverpool College of Music. This is an important contribution on the part of the municipality to the local musical education, and although it may not be very costly, we may be sure that it is much appreciated by those who are able to obtain the help of these Studentships or Exhibitions. Provided through the Education Committee, they will be paid for out of the education rate.

In Manchester.

Manchester, with a population of about 630,000, and a rateable value of over £4,000,000, also provides a city organist, at a salary of £225 per annum, who gives a regular series of Saturday organ recitals at an admission fee of 3d. Dr. J. Kendrick Pyne has been the regular organist since May, 1878, and his performances upon the beautiful Cavaille-Coll organ in the Town Hall are always exceedingly popular. Local bands are now regularly engaged by the Corporation to play in the parks during the summer months. During 1904, there were 253 Sunday and 394 week-day performances, at a cost of about £3,500; and winter concerts have also been given in the public halls. For the latter, the charges of admission were 3d. and 1d., and I understand that the Corporation has had to make up a small deficit. This Corporation, I am glad to find, now makes an annual grant of £300 to the Royal Manchester College of Music, recognising—at any rate to this extent—that it has some direct interest in the real musical education of the city.

In Leeds.

Leeds, population 450,000, rateable value about £2,000,000, also provides a city organist, who gives two weekly recitals when the Town Hall does not happen to be engaged for other purposes—that is, when the Corporation cannot let the hall for anything else. Admission to these recitals is free, but 1d. is charged for a programme. For the season 1903-4, a municipal orchestra of fifty professional musicians was formed, and placed under the direction of the city organist, Mr. H. A. Fricker. During this present season, Mr. Fricker is directing this orchestra in twelve concerts, eight orchestral concerts, two concerts with strings only, and two miscellaneous, with charges of 1s., 6d., and 1d. In the first season, a large part of the hall was entirely free; but for the second season the 1d. charge was substituted, and I believe the conductor has expressed the opinion, based upon his experience, that the paying audience (including those who pay only 1d.) is the more attentive, appreciative, and critical—which is just what we should expect. These concerts are entirely the responsibility of the Corporation, which gives the hall, lighting, etc., free of charge, and trusts to the receipts to pay as much of the expenses as possible. At Leeds, during the winter season, there are also concerts provided by the Art Gallery and Library Committee on Saturday evenings, to which admission is free. They are miscellaneous in character, usually having a small concert-party of pianist, violinist, and singer, or a trio (piano, violin and 'cello), and sometimes having lectures on popular musical subjects. Occasionally, a small choral society is engaged to provide the programme. The Corporation of Leeds evidently has faith in the provision of all kinds of musical performances for the people; but, as far as I have been able to ascertain, it does nothing at present to provide any musical scholarships or to assist musical education technically. It has been observed at Leeds that as the popularity of orchestral performances has increased, the attendance at organ recitals has rather diminished. This may, perhaps, be due to the comparative irregularity of the organ recitals; but, if not, it may be a very fair test for "the survival of the fittest," as at Leeds the orchestral conductor is also the Corporation organist.

In Birmingham.

Birmingham, with its population of 600,000, and a rateable value of nearly £3,000,000, has a city organist, to give forty organ recitals, at a salary of £150 per annum; but beyond this the Corporation does very little for music. Voluntary concerts are arranged for the parks in the summer, towards which the Corporation contributes £500, including £100 paid to its own Police Band; so that a sum of about £700 is the total cost to the municipality for music. I believe, as in many other large towns, an inspector of music is appointed by the Education Committee, for the elementary schools—an appointment which I consider ought to become general in municipalities as soon as possible. To avoid misconception, I would mention that the "Courts and Alleys Concerts," which have been in existence in Birmingham since 1898—and have proved that the very poor people appreciate good music performed to them in the courts and alleys of the slums—are managed by a voluntary committee. What is done by the Corporation at present will not bear comparison with Manchester, Leeds, and Liverpool, and we may well say that, having such a fully-organised music school as that of the Midland Institute, it would be but a small thing to found a number of scholarships there as some help to technical education.

A Comparison.

Liverpool, Manchester, Birmingham, and Leeds are four cities in the forefront of municipal government and enterprise, and we may fairly expect them to set a laudable example in doing something for musical education. In these great centres of "light and leading" you will now be able to judge if their musical interest can be said to be satisfactory. Leeds would seem to be the most active in some respects, but there are signs that Manchester will 'ere long move in the matter of a municipal orchestra, as the subject has been referred to the Music Sub-Committee of the Corporation for full consideration. If it should be possible to evolve a fair and workable scheme for this experiment, in conjunction with its organ recitals, and its grant in aid of the College of Music, at the same time maintaining its very fine musical library, it will be doing much to place music in its proper position in connection with the municipality.

Public Organ Recitals.

In towns where there is a public organ, it is usual to appoint a borough organist; but there are many places where this is not done. Where it is done, the amount of salary and the conditions of the appointment are very variable. We have already heard something of the regular series of organ recitals in Liverpool, Manchester, Birmingham, and Leeds, and we know that there are many boroughs in the United

Kingdom where frequent recitals are given by able organists, and these must usually exercise some good influence upon the musical appreciation and taste of the neighbourhood. Let me here mention a few towns in connection with their organ recitals, adding other information where it appears to be of interest.

Norwich (population 112,000) has long had its popular organ recitals at St. Andrew's Hall, where our friend Dr. Bunnett receives a salary of £100 a year as organist and manager of the popular concerts which he directs. The admission to these is charged 6d. and 2d. Norwich Corporation also provides bands for the park.

Huddersfield (population 95,000) pays a borough organist 50 guineas to give not less than six, nor more than twelve concerts or organ recitals, each of two hours in length. The organist engages artistes for the concerts, subject to arrangements with the Finance Committee. The Corporation also engages bands for the park.

More Might Be Done.

Bolton (population 176,000) has a borough organist with a salary of £60 a year for regular recitals, and also engages occasional organists for extra recitals. Bands are also provided for the parks.

Preston (population 120,000) pays the borough organist £35 a year, and also provides bands for the parks.

Newcastle-on-Tyne (population 260,000) formerly appointed a city organist at £150 a year, but the post was abolished several years ago, and now a winter series of eighteen popular concerts is given in the Town Hall, at 6d. and 1s. for admission. As these are practically self-supporting, Newcastle appears to be economical at the expense of a borough organist.

The London Borough of West Ham (population 295,000) has appointed an organist at £50 for twelve recitals, and also arranges free concerts on alternate Saturdays. Bands are provided for the parks at an annual cost of £1,000. To show how insignificent is the value which some municipalities attach to their borough organist, I will only mention the fact that the City of York appoints an organist at ten guineas a year, while Brighton and Worcester only make honorary appointments.

Brighton, I believe, allows Dr. King the free use of the organ, and of the Dome, when he gives a free recital once a month, so that he provides the entertainment free of any appreciable cost to the Corporation.

Worcester appears to do nothing more than allow some Sunday evening concerts to be arranged under the auspices of the Corporation, to which there is no charge for admission, but a collection is taken to defray expenses.

Not Properly Appreciated.

It is within my own knowledge that several corporations which possess fine concert organs do nothing beyond maintaining the instrument and charging a tolerably high fee for its use upon all occasions. The use of the organ by the Corporation is often confined to engaging some local organist to perform "light music" during a mayoral banquet, or some civic reception, and beyond its public use by local musical societies or other concert givers, the organ is only used to "play the people in" to meetings or lectures. It would, therefore, seem that in many towns the possession of a fine concert organ is not yet properly appreciated as a responsibility by the municipal authorities. The appointment of a well-qualified borough organist may or may not be a matter for local conditions to decide; but there can be little difference of opinion as to the desirability of a good organ in a public hall being regularly used for a series of recitals of good music, under the direction of a professional organist appointed by the Corporation at a proper fee.

To complete the consideration of what is already being done by municipalities, at Sheffield—where we should wish to see the municipality vieing with other large towns in the north as to what it can do for musical education—we find a series of municipal concerts in the winter of very miscellaneous character. As many as thirty of these concerts were given during the winter session 1904-5, frequently in different districts; but always with an alderman or councillor as chairman. They are evidently variety entertainments, as the "popular humorist" and cinematograph exhibition are largely in evidence upon the programmes. The charge for these "popular concerts," so-called, is 3d. and 1d. Local bands are engaged to perform in the parks, but, on behalf of music, I think we may well express the hope that more worthy efforts may before long be made in Sheffield.

An Experimental Departure.

In Sunderland (population 150,000) bands are engaged for the parks; but the only other Corporation expenditure for music is through its Education Committee, which appoints a teacher of music for elementary schools at an annual salary of £300.

Nottingham must be mentioned, because there an experimental departure has recently been made. The Corporation does nothing for music in the way of providing bands for the parks, or winter concerts for the people; but what it has done recently is to pay a subsidy of £200 per annum to the Sacred Harmonic Society upon condition that, in addition to the four choral concerts the society gives every season, it also undertakes to provide two orchestral concerts. At first sight, this would seem to be an admirable plan, and I believe it would be under more careful regulation, and as an addition to other municipal grants in aid of music; but, to show that there are objections to it as at present carried out, I will quote part of a letter received from a member of the I.S.M. resident in Nottingham. He writes that "In subsidizing the society here, the Corporation is helped to find music for the classes who are rich enough to pay for it. If, like the London County Council, they would subsidize the military bands for summer concerts in the parks (under proper management) they would benefit masses who cannot afford to pay for it, and who always show a keen appreciation of what is done for them in this respect."

Criticism at Plymouth.

Plymouth has attracted some attention by reason of the criticism which Dr. Weekes has offered upon the methods of the Corporation in making use of music in competition with the established societies already existing, and to their serious detriment.

The borough organist there gives weekly recitals on Thursday afternoons, 1d. and 3d. being charged for admission. In addition to this, the Corporation appears to have sanctioned his forming a society, under the auspices of the Guildhall, and giving cheap concerts on Saturdays. The charges for these were at first 1d. and 3d., then 1d. and 6d., and now they are 1d., 6d., and 1s. But the grievance which the local conductors have is that the Corporation provides rooms for practices and concerts free of charge, while the other local societies have to pay a high rental for the same accommodation, even when they give performances entirely for charitable objects. Thus handicapped, and in competition as it seems, with cheap municipal concerts which satisfy the general public as a means of entertainment, one of the old societies has already ceased to exist, and those conducted by Dr. Weekes are obliged to reduce their expenses through lack of public support. This means that the complete representation of great works is jeopardised in Plymouth, and the choral and orchestral performances cannot be continued on the same artistic scale, which means that their educational power is crippled. Perhaps all this cannot fairly be ascribed solely to the competition of the municipal cheap concerts, but it is a sufficient reason for the dissatisfaction with which local musicians regard the competing schemes; and it certainly seems, on the face of these facts, that the proper line of action for the Corporation to take—having provided regular organ recitals and also bands to play on the Hoe and in the parks—would be to subscribe to these existing local societies in some way, and to require a certain number of the cheapest seats at each concert to be placed at their disposal.

(To be concluded.)

COUNTY COUNCILS ASSOCIATION.

EDUCATION AND RATING MATTERS.

A MEETING of the Executive Council of the County Councils Association was held at Westminster last week. Sir John Hibbert presided.

The Education Committee presented a report making a series of recommendations with regard to the regulation of secondary school buildings. These recommendations referred chiefly to minimum accommodation, staircases, class-rooms, and lecture rooms, workshops, library, drawing, art, and music-rooms. The committee asked for a differentiation of rural schools from those in crowded urban areas, that the local education authority should have its statutory powers more clearly recognised in view of the fact that the entire cost of school buildings must fall on the locality, and that the Education Department be asked to adopt a lower scale of requirements applicable to smaller rural schools.

The Department had written that the practice of paying grants for the education of blind and deaf children appeared to meet the wishes of the committee, as stated in a letter sent by the committee to Whitehall; that the Department was not in a position at present to give any further information with respect to funds hitherto applied to local science and art scholarships; that the Railway Clearing House was unable to raise the age limit to 19 on half-rate periodical tickets to pupil teachers, and that it was not deemed at present desirable to make more stringent requirements in regard to the employment of supplementary teachers.

Other matters were postponed to the committee's June meeting.

The council adopted the report of the committee.

The Parliamentary Committee reported having had under consideration the Agricultural Rates Act (1896, &c.) Continuance Bill, and, while approving of the measure, re-affirmed the resolution of the Council of February, 1904, to this effect:—"That in consequence of the large additional burdens which have been cast upon the country rates since the passage of the Agricultural Rates Act, 1896, the grant should be so amended as to make it equal to half the share of agricultural land in the actual expenditure of the County Council in each financial year, and not as it stood in the year ending 31st March, 1896."

The committee's report was adopted.

The Council referred to the Parliamentary Committee a letter from the Surrey County Council on the subject of the agreement between the Postmaster-General and the National Telephone Company, and postponed the consideration of a resolution of the West Riding Joint Committee seeking an extension of the Government grant to police pensions funds.

It was announced that at the annual meeting of the Association, the Hon. A. H. D. Acland would read a paper on the training of pupil teachers. Another paper will deal with the unnecessary expense occasioned to County Councils by the requirements of Government departments, especially in connection with lunatic asylums and isolation hospitals.

Sir John T. Hibbert has consented to nomination for re-election to the presidency of the Association.

"The Culture of Sweet Peas." By Richard Dean, V.M.H., &c. London: Agricultural and Horticultural Association. Price one penny. This is No. 1 of a series of cheap popular handbooks on gardening edited by Edward Owen Greening, F.R.H.S. The aim is to bring reliable expert advice within the reach of all. The pamphlet is neatly printed on good paper, and well illustrated throughout. This issue is the third edition, and contains much new matter.

EDUCATION AND RATES.

The Financial Strain Breaks at East Ham, and Seven Hundred Teachers Receive Notice to Quit. A Three-Shilling Education Rate. Heavy Increases all over the Country: An Average Rise of Twopence in the Pound for Education. The Causes of the Sudden Rise and the Only Practical Remedy.

At this period of the year, education committees all over the country have been busy framing their estimates for the ensuing year. With the opportunity for co-ordination of all grades of education has come also the responsibility of finding the wherewithal to carry out the urgent requirements for a complete graded system of public education.

A perusal of our "Notes" columns of the past three or four weeks will have brought to the notice of the most casual reader, the universality of the heavy financial burdens laid upon local education authorities by the Government. As a result, increases of 4d. in the £ have become quite common, and from all parts of the country protests—loud and prolonged—have been made against the growing educational rates, and the meagre means available from Imperial sources.

It is not unreasonable to contend that the education of the people is essentially a State duty. It is equally difficult to deny that the sums of money granted by Government towards the cost of public education are most inadequate.

As a consequence, our educational administrators are to-day faced with a popular protest against the general increase in the rates levied for education, and various are the devices which have been resorted to in order to relieve the backs of the overburdened ratepayer.

East Ham's Drastic Decision.

No attempts have been so drastic in their nature as that which has been taken by the Borough of East Ham. Faced with an education rate of 3s. in the £, the East Ham Borough Council has struck.

It has decided to close its public elementary schools—twenty in number—on 31st May next, and the notices to quit have already been issued to its 700 or so teachers and officials.

As a practical protest against the parsimonious payments of Parliament, this step is dramatic in the extreme.

Whether the Board of Education will be equally drastic in its action, is a matter of considerable interest in educational circles, and of great importance to East Ham in particular.

It is rumoured that several of the extra metropolitan councils are likely to take heart of grace, and follow the vicarious example of the councillors of East Ham. If this be the case, then it is to be hoped that the authorities at Whitehall will regard this latest form of "resistance" as one deserving of the greatest sympathy and consideration.

A 3s. Education Rate.

For the decision of East Ham is founded, not upon bigotry, or jealousy of sectarian beliefs, but upon the solid and unwelcome fact that the rate for education is 3s. in the £; that three more schools are required at once; and that the cost of their erection means another 9d. on the rates. Add to this the fact that the general rates in the district are over 10s. in the £, and one can understand the anxiety with which the whole position at East Ham is viewed, both by friends and opponents of the Education Act of 1902.

Let us look a little closer into the position in this poor suburb of the metropolis. What do we find? The Borough Council is the education authority for a population of 120,000. It has the care of 22,492 children in its Council schools, and 762 in its voluntary schools. There can, therefore, be no question as to the origin of the present difficulty. It is not a case of "Passive Resistance." It is a revolt of the overburdened ratepayer.

In the Council itself, much perplexity has prevailed for months past as to the ultimate outcome of the present impossible state of affairs educational. Representations have been made by the local members, both by conferences and by individual remonstrances in the House of Commons, but so far without avail.

Small wonder, then, at the Council's resolution to bring the matter to a head—one way or another. It is, indeed, difficult to reconcile oneself to the action of an elected body specially charged with the administration of the law, taking upon itself the direct violation of that responsibility.

On the other hand, one cannot expect a pint vessel to hold a quart of liquid.

Much Responsibility—Little Money.

The truth, therefore, is that the Government has seen fit to devolve the responsibility for all grades of education upon local authorities, but has, somewhat shortsightedly, omitted to provide the necessary ways and means for the execution of this important duty.

True, the Act of 1902, made provision for a large sum of money in the shape of the new Aid Grant under Sec. 10, but the expectations which were optimistically foreshadowed in official quarters, that the sums available under this section would be more than sufficient to meet the natural growth of educational necessities, have not been realised.

The increased grants under the section quoted, have, in the case of East Ham, resulted in an additional payment of £300. In other typical cases the grants have worked out as follows:—

	Increased grant.	Rate.
Liverpool	£50,000 ..	1s. 3d.
Manchester	41,000 ...	1s. 3d.
Birmingham	38,000 ...	1s. 2d.
Sheffield	32,000 ...	1s. 0d.
Bradford	19,000 ..	1s. 7d.

Altogether, the sum of £900,000 extra has been given to the country as a whole, of which East Ham has received £300. Compare with this small contribution the sum of £8,063, which East Ham received for the year ended September, 1903, under the Necessitous School Boards Act of 1897—unfortunately repealed—and which may undergo resuscitation in the near future.

The Heavy Rate in Other Districts.

This parlous state of things is not, however, confined to the Borough of East Ham. There are many other districts composed of the poorer-class population, with low rating value, where the rates are excessive and altogether disproportionate to the average rating of the more wealthy neighbourhoods.

Walthamstow, to wit, has the prospect of a rate of 2s. 5d. in the £ for elementary education alone. If higher education be added, the rate will reach the abnormal sum of 2s. 8d. in the £.

This sum, however, does not represent the real position of affairs, for had it not been for the reserve left over by the late School Board, the rate would be increased this year to 3s. all but a penny.

Over a Shilling in the £.

Farther afield, one is met with the same results, an increased rate for education. In five county council areas, forty-five county borough areas, and seventy-eight non-county boroughs, the education rate exceeds 1s. in the £. Only last week, Derbyshire added 2d. in the £, and West Sussex 4d.

In Oldham, 3d. is the increased rate, and the Education Committee is so alarmed that it is sending a letter to the local members of Parliament protesting against the strain on the local purse.

Increases in 1905-6.

Some of the increases taken from different parts of the country are as follows:—

	In the £.		In the £
Bradford ...	1d.	Liverpool ...	4d.
Carmarthen ...	3½d.	Leicester ...	1d.
Chelmsford ...	4d.	South Shields .	3d.
Cheltenham ...	2d.	Surrey ...	4½d.
Coventry ...	2½d.	Warrington ...	1½d.
Durham ...	1d.	West Ham ...	3d.
Gloucestershire	2d.	Winchester ...	3d.
Jarrow	4d.	York	3½d.
Kent	3d.	King's Norton.	2d.
Nottingham ...	1½d.	Hartlepool ...	1d.

If we take the average increase of twenty of these education authorities, we find that the rate is enlarged by 2 4-5d. in the £, whilst the average rate for education works out at 1s. 2d. in the £.

Averages of 1902—5.

Comparisons with the earlier years of the recent Act are given in the following table, which shows the average rate in certain districts during the last three years:—

Bucks ..	7½d.	No working capital.
Essex ...	7d.	Overdraft £17,000.
East Sussex ...	8⅝d.	Working capital £16,000.
Hampshire ...	8d.	No working balance.
Kent ...	8½d.	Working capital £40,000.
Lancs. ...	10 5/16d.	,, ,, £75,000.
Suffolk	8d.	No working capital.
Surrey .	7½d.	Working balance £35,000.

The reasons which have led to the sudden jump in the rates within the past year, are not difficult to trace.

Almost every country district has had to make provision for the better housing, the better staffing, the better teaching, and the better organisation of its schools. At the time of change, in 1903, the Government recognised that while the local authorities took over the assets of the old School Boards, they also became responsible for the liabilities. The latter amounted in 1902 to £33,564,000.

It was further conceded that in many cases, owing to the block payments of the annual Government grants, some authorities would commence their educational task with actually no funds whatever. For these two reasons, the Working Balances Act was hurried through, so that the extra financial responsibilities cast upon the new administrators might, to a certain extent, be met.

A Cause of Increase.

Borrowing, like stealing, however, has its day of reckoning. And in many of the estimates recently presented to the education authorities, one sees a large item under deficiency account which represents the repayment of principal and interest of these working balance loans, and which is chargeable to the rates. In many instances, the sum amounts to a large proportion of the outgoings for education, and often represents a penny or twopenny rate.

Increased Teachers' Salaries.

There are, however, other causes for the abnormal increases in education estimates which we have had to record in these columns of late. One of the most frequent and probably most necessary, is that relating to the salaries of teachers. The Education Committees have early realised that if efficient teaching is to be given in the public schools, a living wage must be paid. Competition, too, has played its part in forcing up the market price of teachers, and most, if not all, of the largest councils have revised, or are revising, the salaries of their teachers. Another chief drain upon the ratepayers' pocket has undoubtedly been caused by the additional maintenance of the non-provided schools.

Maintenance of Voluntary Schools.

When it is recollected that the Education Act cast the entire burden of maintenance of these schools upon the rates, and that the number of schools supported from the public purse was more than doubled thereby, it will be admitted that nothing but more liberal help from the Imperial Exchequer can avail to save the situation of to-day. The Board of Education has not the power to enforce the Default Act against East Ham, and that it will mandamus the councillors appears unlikely.

The Way Out.

The only real solution is the giving of substantial increases in the Government grants, either by an uniform Government grant instead of the present differential basis of payment, the resuscitation of the Necessitous School Boards Act of 1897, or by a reorganisation of the basis of computation of the Aid Grant under Sec. 10 of the Act of 1902.

The question is of supreme importance, but considerations of space preclude us this week from dealing exhaustively with the financial position of education. This we hope to do next week.

EDUCATIONAL NOTES.

Alton.

An application made to the Education Committee a month ago, to admit the Press was declined. The Committee has, however, now agreed to admit the Press in future.

Bath.

The estimates of the Education Committee for the year ending March, 1906, show £14,000 required from the rates. This is equal to 11½d. in the pound, as compared with 4½d. three years ago.

Birmingham.

The Education Committee has decided, in the Coseley district, to open the schools on specific days, not to exceed twelve, at 9.50 a.m., instead of 9 o'clock, to enable the children to go to church.

Blackburn.

The education estimates for the ensuing year require £22,526 for elementary, and £5,811 for higher education from the rates.

Bradford.

The Education Committee is issuing an educational directory, giving particulars of the bursaries, scholarships, and exhibitions to be awarded during the year.

Bucks.

A report of the work carried on by the Higher Education Sub-Committee during the year ended July, 1904, has just been issued. The lectures and demonstrations in horticulture have been very successful, as evidenced by the large attendance of teachers at the twenty-five centres.

Carlisle.

The education estimates require the sum of £17,000 out of the rates. This equals a rate of 1s. 7d. in the pound, as compared with 1s. 1d. last year.

Carmarthenshire.

The education rate for the ensuing year is 1s. 3½d., being an increase of 3d. over last year, exclusive of a ½d. rate for intermediate education.

Chester.

The Education Committee is considering whether it shall make any departure in respect of the appointment of married women as teachers.

Derbyshire.

The proposed purchase of the Barrow Hill schools by the County Council from the Stavcley Coal and Iron Company will involve an increase of 4d. in the pound for education.

East Ham.

The Borough Council has unanimously declined to administer the Education Act as from 1st June next, in view of the heavy rates for national purposes which are raised locally.

Edmonton.

The anticipated education estimates for 1905-6 will probably involve an increase of 3d. in the pound, making the rate for the year equal to 3s.

Elland.

The members of the District Sub-Committee have declined to remain members, on the ground of the limited powers given them by the County Council. There are only two managers left, and these have been nominated by the county authority. Meanwhile, educational local management is at a deadlock.

Essex.

The Education Committee has adopted a syllabus of religious instruction for all the Council schools, prepared under the direction of the Bishop of Barking.

Gorton.

The Chairman of the Education Committee, at a meeting of the new Council school, referred to the success of the scheme of admitting boys and girls leaving the day schools into the evening schools, at a nominal fee of 1s., to be returned at the end of the session in the event of ninety per cent. of the possible attendances on three evenings per week being made.

Lewes.

At the Education Committee, a letter was read from the Local Government Board stating, in reference to medical certificates, that the Board considered the onus of supplying evidence of a reasonable excuse for non-attendance of a child devolved upon the parent. If, however, through poverty or other cause, the parent did not obtain a certificate, the Board considered the cost of obtaining a certificate a legal charge on the rates.

Manchester.

The education estimates for higher education amount to £84,440, and for elementary education to £215,695. Compared with last year, this represents an increase of 3d. in the pound.

Middlesbrough.

The Board of Education has informed the managers of the St. Mary's schools that the terms of Sec. 7 (a) of the Education Act, 1902, contemplate that directions of the local education authority as to secular instruction in voluntary schools should be given by the authority to the school managers, and carried out by them, and should not be given directly by the authority to the teachers.

Northamptonshire.

At a recent meeting of the education authority, a letter was read from the Board of Education upholding the action of the authority in withdrawing financial aid from a voluntary school, the managers of which had refused to comply with certain directions respecting religious instruction.

Northumberland.

The Education Committee has decided that where the managers are able to secure the necessary land, and a qualified teacher is available, instruction in gardening should be associated with the school work, and be encouraged by granting assistance in the way of grants for instruction, tools, &c.

Nottinghamshire.

The Education Committee has come to the conclusion that any system of prize-giving which would tend to improve the attendance of the children materially, would be too costly to be advantageous, and that it is undesirable to encourage the attendance of children in all states of health.

Oxfordshire.

The estimated expenditure for education amounts to £65,000, being an increase of £5,000 over last year. The special rates in local areas vary from 8d. to 1s. in the pound.

Salford.

The Education Committee has decided to abolish the fees in certain voluntary schools as from 1st May, in accordance with the wishes of the managers.

Sheffield.

The granting of the Charter to the new University has been received with much enthusiasm. A meeting of workmen was recently held at the Park Gate Iron and Steel Company, Limited, in support of the movement. The City Council of Leeds has allocated a rate of ½d. in the pound, and Sheffield a 1d. rate towards the maintenance of the University.

Shipley.

At a recent meeting of the Education Committee, it was reported that the requirements for education were £800 less than last year. This represents a reduction of 2d. in the pound.

Slough.

At the monthly meeting of the Education Committee, complaint was made as to the stringency of the county regulations with reference to attendance at technical evening classes. It was decided to ask the county authority to remove the limitations from the syllabus.

Southport.

A scheme of exhibitions for probationers of the pupil teachers' centre has been adopted. Thirty exhibitions are to be offered for boys and girls fourteen to sixteen, on their undertaking to become pupil teachers locally.

Walthamstow.

At the last meeting of the Education Committee, it was decided to issue a precept for the half-year ending September, 1905, for £24,500, equal to a rate of 1s. 3½d. in the pound. The rate for the whole year equals 2s. 5d. in the pound. This is exclusive of the rate for higher education.

Winchester.

The Education Committee decided to ask the Board of Education to continue the present system of paying the annual grant by instalments, instead of in one sum at the end of the year, as proposed. The education estimates require the sum of £2,648 from the rates, equal to 5d. in the pound.

Yorkshire.

The rates for education of various districts in the Riding have risen from 1d. to 3d. in the pound. The rates for the ensuing year at Barnsley are 1s. 4d.; Morley, 1s. 8d.; Rotherham, 1s. 9d.; Batley, 1s. 0½d.; Huddersfield, 1s. 3½d.; Dewsbury, 1s. 7½d.

THE EMPLOYMENT OF CHILDREN

Leicester Bye-Laws Confirmed.

THE Town Clerk of Leicester has received notification that the Home Secretary has confirmed the bye-laws for regulating the employment of children and street trading by persons under the age of sixteen, which were passed by the Town Council on January 3, with one alteration. Bye-law 2 states that "no child who is liable to attend school full time shall be employed in the delivering of newspapers except between the hours of 6.30 and 8.15 in the morning, and 5 and 8 in the afternoon." The alteration is to this bye-law, and gives a newsagent power to select, on Saturdays only, the alternative hours of from 6.30 in the morning, consecutively, to 12.30, with one hour's interval. In that case, of course, the boy would not be employed from 5 till 8 as well.

Notice will be given shortly of the arrangements for carrying out the bye-laws; but we may say that everything is ready for the registration and licensing of the children. A room has been set apart at the Old Town Hall for receiving applications; the badges are ready; and the other details have all been seen to.

MARKETS PROCEDURE.—I.

A Valuable Inquiry into Market Methods and Practice of Some of the Largest English Cities and Towns. Great Lack of Uniformity. Actual Charges for Space in Different Centres to Wholesale Traders, and also in Cases Where Statutory Limits Exist. Special and Extra Accommodation.

THERE are few more important enterprises closely touching the interests of a city or town than sound markets. This is a matter which has not been given the amount of attention by many municipalities to which it is entitled. One factor that doubtless has stood in the way of progress is the absence of uniformity as to the arrangements existing in, and the administration of, municipal markets throughout the country, and the rents and toll charges are found to vary in each place.

We are enabled through the researches of a Special Committee appointed by the Manchester Corporation, to give some valuable information in regard to the methods and practice of some of the largest English cities and towns. Much of this information was obtained through visiting the markets referred to. In other cases information was written for.

It is surprising to find how various are the actual charges to wholesale traders for space in the Corporation markets. The replies on this point were as follows:—

Birmingham.—Wholesale fruit and vegetable market 6d. to 9d. per square yard per week. Present lettings 9d., inclusive of rates, electric light, &c. Wholesale fish market 9d. to 1s. per square yard per week.

Bradford.—Open stands or spaces about 10 feet by 20 feet are let to market gardeners who bring their own produce. The rental is 5s. per week.

Bristol.—Spaces are fixed, and would run to about 1½d. per square foot.

Derby.—No covered wholesale market. Ground space, 8d. per foot frontage 18 feet deep, and 1s. per foot frontage 27 feet 6 inches deep, with 5s. added for each corner position.

Glasgow.—Meat market, ¼d. per square foot per week. Dues charged besides. Fish market, 4s. 6d. per square foot per annum. No dues charged. In the fruit and vegetable markets there are no fixed charges. The present rates are: For stances, from 1s. 3d. to 6s. 9½d. per square foot annually; basement, 1½d. to 6d.

Huddersfield.—Stands measuring 14 feet by 24 feet, from 13s. to 15s. per week.

Hull.—In the wholesale market, under cover, 18 feet by 8 feet, 6d., 7d., and 8d. per day, according to position. In the general market, space 8 feet by 4 feet, 6d. per day.

Leeds.—Sevenpence halfpenny per square yard per week; corner positions are, on an average, 9d. per square yard per week.

Liverpool.—The lettings are by tender. The rent of stalls is based on a charge per running yard frontage, each stall having a depth of about 8 feet. The rents are equivalent to a charge of 1s. 3d. to 1s. 6d. per square yard per week.

London (Billingsgate).—From 6d. to 9d. per foot super, according to position, the latter amount being the statutory limit.

London (Shadwell).—The bye-laws prescribe 6d. per foot super. as the rent of floor space.

Newcastle-upon-Tyne.—The last letting was at the rate of 1s. 3d. per square yard. The rents generally vary from 8d. to 1s. per square yard per week.

Nottingham.—Fruit and vegetables, 5d. per foot frontage per week; fish, 7d. per foot frontage per week. Corner stalls charged 3d. per foot extra for end frontage. All stalls 14 feet 6 inches deep, with 6 feet 6 inches space in front, for sold goods. Tenants provide their own stalls. The market is an open one.

Sheffield.—9d. to 1s. 6d. wholesale fruit and vegetable; 9d. to 1s. 7d. fish and game. Tenders below the minimum amount are not entertained. The minimum amounts are 9d. per square yard in the wholesale fruit and vegetable market, 1s. per square yard in the extension market, and 9d. in the wholesale fish market.

Manchester.—A weekly rent not exceeding 1s. per superficial yard may be charged. The actual rents paid vary from 6d. to 1s. per square yard per week.

The following table will be useful as showing the information as to actual charges to wholesale traders, and the authorised maximum charges in cases where statutory limits exist:—

Name of City or Town.	Method of Charge.	Amount or equivalent amount per square yard per week charged.	Amount or equivalent amount of authorised maximum charge per square yard per week.
Birmingham	Per square yard per week—		
	In Wholesale Fruit and Vegetable Market	6d. to 9d.	9d.
	In Wholesale Fish Market	9d. to 1s.	1s. 1½d.
Bradford	Spaces 10ft. by 20ft., 5s. per week	2½d.	No statutory maximum charges.
Bristol	1½d. per square foot per week	1s. 1½d.	No statutory maximum charges.
Derby	8d. per foot frontage 18ft. deep, and 1s. per foot frontage 27ft. 6in. deep.	4d.	1s. 1½d.
	5s. added for each corner position	4d.	
Glasgow	In Meat Market, ¼d. per square foot per week. [Dues charged in addition.]	2¼d.	No statutory maximum charges.
	In Fish Market, 4s. 6d. per square foot per annum. [No dues.]	9d.	
	In Fruit and Vegetable Markets. 1s. 3d. to 6s. 9½d. per square foot per annum.	2½d. to 1s. 2d.	
Huddersfield	Stands measuring 14ft. by 24ft., from 13s. to 15s. per week.	4d. to 5d.	4s. 6d.
Hull	In Wholesale Market, 18ft. by 8ft., 6d. to 8d. per day.	2¼d. to 3d.	No statutory maximum charges.
	In the General Market, 8ft. by 4ft., 6d. per day.	10d.	
Leeds	Per square yard per week—		
	In General Markets.	7½d.	9d.
	In Fish Markets		1s. 6d.
	Corner positions	9d.	
Liverpool	Per running yard frontage per week, the stalls being 8ft. deep.	1s. 3d. to 1s. 6d.	3s.
London—Billingsgate	6d. to 9d. per superficial foot per week	From 4s. 6d. to 6s. 9d.	6s. 9d.
Shadwell	6d. per superficial foot per week	4s. 6d.	4s. 6d.
Newcastle-upon-Tyne	Per square foot per week	8d. to 1s.	1s.
Nottingham	Fruit and Vegetables, 5d. per foot frontage per week	3d. in Fruit and Vegetable Market.	7d.
	Fish, 7d. per foot frontage per week	4½d. in Fish Market.	Such sum as the Corporation thinks fit.
	All stalls 14ft 6in. deep. Corner positions extra.		
Sheffield	Per square yard per week	9d. to 1s. 6d. in Fruit and Vegetable Market.	3s. in Covered Markets.
		9d. to 1s. 7d. in Fish and Game Market.	2s. 3d. in Uncovered Markets.
Manchester	Per square yard per week	6d. to 1s.	1s.

In certain cases both the actual and authorised maximum rents set forth relate not only to "space on the surface of the ground," but to shops in the markets, or where stands or benches are provided.

This comparison shows that in the cases of Bristol, Glasgow (fruit and vegetable markets), Liverpool, London (Billingsgate and Shadwell), and Sheffield, the actual rents received for some of the stalls in the markets are higher than the maximum rent for stalls of 1s. per square yard per week authorised by the Local Government Board's Provisional Orders Confirmation (No. 8) Act, 1884—Manchester Order.

Little less important is the information elicited in regard to charges made when other accommodation is supplied, and as to what is the nature of the special or extra accommodation provided. Some of the replies were as follows:—

Birmingham.—No charge in addition to above rent for space. In Retail Market Hall stalls are let with space. On toll ground tolls only are paid.

Glasgow.—A few have extra space adjoining the meat market; the rate charged is ¾d. per square foot per week. In the fruit and vegetable markets: None supplied except in the case of offices, some of which are let at £1 per month; others, erected by the Corporation above stance occupied, 1s. per square foot annually.

Huddersfield.—We do not supply any other accommodation.

Hull.—Same charges as above, *pro rata* extra ground space.

Leeds.—Offices are placed on these stands, for which the tenant pays 10s. to £1 per year, according to size.

Liverpool.—The public lighting in the market is generally sufficient for the tenant's requirements.

London (Billingsgate).—Sheds in basement for storage, &c., are let at a uniform rate of 10s. a week, and offices on upper floors at about 10s. per 100 feet super. No fittings or lighting provided by the Corporation except public lighting.

Newcastle-upon-Tyne.—Lofts over some of the stalls, for which a charge of 1s. per week was formerly made, but now let with the stalls. There are also shops facing the adjoining streets which will in future be let by tender.

Sheffield.—No other accommodation is supplied. The arrangements for lighting vary in each market.

From these inquiries it does not appear to be the general custom to provide any special accommodation or conveniences in connection with rented stalls in the markets. In some cases, however, offices are provided by the Corporation, for which rent is paid, and in others tenants are allowed to provide their own offices on the ground space which they rent. The rent paid for offices at Glasgow (fruit and vegetable markets), is equivalent to 5s. per week; at the Liverpool fish market, 12s. 6d. to 20s. per week; at Leeds, 10s. to 20s. per year; and at Billingsgate, 10s. per 100 superficial feet per week. The rent of offices in Manchester in the fish market is 1s. per week, and in the fruit and vegetable markets 4s. to 10s. per week. The latter offices are away from the stalls. At Liverpool the offices provided by the Corporation, for which rents are paid, are in the fish markets. In these markets rent is not charged for the space in front of the stall, but toll is charged on the fish placed on the ground for sale. The office-holder has the first opportunity of using the toll ground in front of the office, but any other person can place fish on these toll plots for sale should the office-holder not be using the same. In the fruit and vegetable markets at Liverpool offices are not provided by the Corporation, but when required they can be provided by the tenants.

HOUSING PROGRESS.

The Official Monthly Record of the National Housing Reform Council for England and Wales. The New York Tenement System and its Special Evils to Slum Dwellers. The Failure of the "Air Shafts," which Act as Conveyors of Noise, Odours, and Disease, and, when Fire Breaks Out, Serve as Inflammable Flues. Municipal Negligence During Half a Century. The New Order of Things and Remedial Work.

At two of the conferences arranged recently by the National Housing Reform Council, the need for greater municipal vigilance in regard to the planning of new housing areas has received special attention. Many letters have been sent by town and district councillors expressing warm approval of the action of the Council in thus starting a campaign to check the development of new slums.

At the Liverpool Conference Mr. John H. Barlow, the secretary to the Bournville Village Trust, gave a description of the results achieved at Bournville as shown in lessened general death rate, the development of a healthy village life, and general social betterment.

Unfortunately, the examples to be copied are small and insignificant when compared with the actual instances of bad planning to be found in almost every town in the United Kingdom. At the most we can only show about half a dozen instances of first-rate planning, and day by day the overcrowding of houses on land, and the placing of workmen's houses on unsuitable sites continues almost unchecked.

In Darkest New York.

If the evil be a great one in British cities, it is, indeed, a colossal evil in New York City, judging from the "first report of the Tenement House Department," published about a year ago.

New York has about 82,000 tenement houses, occupied by nearly 3,000,000 of people, representing every nationality and every degree in the social scale. The following is a description of the prevailing kind of New York tenement house:—

Some knowledge of the prevailing kind of New York tenement house must necessarily precede any consideration of its evils and their remedies. It is known as the "double-decker," "dumb-bell" tenement, a type which New York has the unenviable distinction of having invented. It is a type unknown to any other city in America or Europe. Although the housing problem is one of the leading political questions of the day in England, the conditions which exist there are ideal, compared to the conditions in New York.

The tall tenement house, accommodating as many as 100 to 150 persons in one building, extending up six or seven stories into the air, with dark, unventilated rooms, is unknown in London, or in any other city of Great Britain. It was first constructed in New York about the year 1879, and, with slight modifications, has been practically the sole type of building erected since, and is the type of the present day. It is a building usually five or six, or even seven, stories high, about 25ft. wide, and built upon a lot of land of the same width, and about a hundred feet deep. The building, as a rule, extends back 90ft., leaving the small space of 10ft. unoccupied at the rear, so that the back rooms may obtain some light and air. This space has continued to be left open only because the law has compelled it.

Upon the entrance floor, there are generally two stores, one on each side of the building, and these sometimes have two or three living rooms back of them. In the centre is the entrance hall-way, a long corridor less than three feet wide, and extending back sixty feet in length. The hall-way is nearly always totally dark, receiving no light except that from the street door and a faint light that comes from the small windows opening upon the stairs, which are placed at one side of the hall-way. Each floor above is generally divided into four sets of apartments, there being seven rooms on each side of the hall, extending back from the street to the rear of the building.

The front apartments generally consist of four rooms each, and the rear apartments of three rooms, making altogether fourteen rooms upon each floor, or, in a seven storey-house, eighty-four rooms, exclusive of the stores and rooms back of them. Of these fourteen rooms on each floor only four receive direct light and air from the street or from the small yard at the back of the building. Generally, along each side of the building is what is termed an "air shaft," being an indentation of the wall to a depth of about twenty-eight inches and extending in length for a space of from fifty to sixty feet. This shaft is entirely enclosed on four sides, and is, of course, the full height of the building, often from sixty to seventy-two feet high.

The ostensible purpose of the shaft is to provide light and air to the five rooms on each side of the house, which get no direct light and air from the street or yard; but as the shafts are narrow and high, being enclosed on all four sides, and without any intake of air at the bottom, these rooms obtain, instead of fresh air and sunshine, foul air and semi-darkness. Indeed, it is questionable whether the rooms would not be more habitable and more sanitary with no shaft at all, depending for their light and air solely upon the front and back rooms, into which they open, for each family, besides having the foul air from its own rooms to breathe, is compelled to breathe the emanations from the rooms of some eleven other families. Nor is this all. These shafts act as conveyors of noise, odours, and disease, and when fire breaks out serve as inflammable flues, often rendering it impossible to save the buildings from destruction.

350,000 Dark Rooms.

The absence of light and air space in London's alleys and courts is bad enough, but the New York tenement system seems to aggravate all the special evils of slum dwelling. When the Tenement House Department set to work, no one had any conception of the extent to which the "dark room" existed, and one of the first tasks undertaken by the Board of Health was that of reckoning up the number of these unhealthy dwelling places. It was then found that there were "no less than 350,000 dark interior rooms, without any light whatsoever. That in a great majority of these rooms there are no windows at all, not even a window connecting with another room in the same apartment; that many of these rooms are two rooms removed from the outer air. That a considerable number are three rooms removed from the outer air, and that even some are four rooms so removed."

It need hardly be added that leading physicians and experts attribute a large number of the 8,000 deaths from consumption, and 20,000 cases of sickness annually due to consumption, to the shutting out of sunlight and fresh air from the homes of the people. In Great Britain, France, and Germany the rent per room in a tenement house is always greater than the rent per room in a cottage, and New York is no exception to this rule. A family living in the "double decker" tenement pays for four rooms a rent of from 48s. to 72s. per month—say, 12s. to 18s. per week. Of these four rooms only two are large enough to be deserving of the name of rooms.

Insanitary Conditions.

The same municipal negligence which permitted the building of these tenements, permitted also the owners and tenants to violate almost every sanitary law. The report states that tenement conditions in many instances have been found to be so bad as to be indescribable in print; vile privies and privy sinks; foul cellars full of rubbish, in many cases of garbage and decomposing fecal matter; dilapidated and dangerous stairs; plumbing pipes containing large holes emitting sewer gas throughout the houses; rooms so dark that one cannot see the people in them; cellars occupied as sleeping places; dangerous bakeries without proper protection in case of fire; pigs, goats, horses, and other animals kept in cellars; dangerous old fire traps without fire escapes; disease-breeding rags and junk stored in tenement houses; halls kept dark at night, endangering the lives and safety of the occupants; buildings without adequate water supply—the list might be added to almost indefinitely.

Many reports by inspectors are quoted. Thus Mr. David M. Jones says:—

Suppose you live on the fourth storey of a rear tenement, six stories high, located on Monroe street. You have a living-room and a bedroom; your neighbour on the same floor is similarly situated. Your bedroom window is just twenty-four inches from a bedroom window of another six-storey brick tenement, which is at the rear of a lot fronting on Madison Street. In other words, the two rear buildings are twenty-four inches apart above the first storey, and the space between the walls at the first storey is sixteen inches.

The occupants of these six-storey buildings, twenty-four families in all, have been throwing filth of every description—rags, refuse, garbage, &c.—into this open space. The rain beats upon the accumulation; some sunlight may rest upon it for a few minutes; more garbage, more filth, more rain. The process is repeated until there is a mass of refuse five feet deep between the houses. The stench arising is sickening! You close your bedroom window! What are you going to do? Move? Perhaps you cannot afford to move. Complain to the landlord? Experience teaches you that you might as well save your breath. Make too much trouble for the owner, and some day be dispossessed. What next—is there no hope? And the answer comes in the form of a tenement-house inspector, whose pen soon writes the violation which requires the owners of the buildings to thoroughly cleanse and disinfect the bottom of the so-called "air-space" between the rear buildings.

Mr. M. G. Franghiadi reports:—

A complaint was received by the department of the unlawful occupation of a cellar in the tenement house, No. 25, Jefferson Street. On investigation, a room was found in the cellar tenanted by a cobbler, who repaired shoes there in the daytime and kept a lodging-house at night.

The room contained a bed, a lounge, two chairs, a stove, a cobbler's bench, and a sink. In this room, the superficial area of which was 12ft. by 15ft., from five to eight men slept nightly, each paying from four to seven cents a night for lodging, the price depending upon whether the lodger slept on the bed or lounge or on the floor.

The room was dirty and foul smelling. No more fertile field could be found for the propagation of such filth diseases as typhoid fever, &c., and, as the personnel of the lodgers varied from night to night, the liability of the introduction of such diseases was very marked.

Through the intervention of the department, the room was vacated.

Half a Century of Civic Neglect.

These are the results of half a century's civic neglect in New York. During part of that period the political "boss" has reigned supreme. Business men have neglected their civic duties. Workmen and rich men alike have been so busy with the individual quest for the "Almighty Dollar" that they have had little time in their strenuous lives to develop high civic ideals. To remove the evils of overcrowding in New York will be the work of generations. In these huge tenements covering 75 per cent. of the ground space, something may be done to provide more light and air space, but until most of them are pulled down altogether, the worst evils will not have been cured.

Splendid Work of the New Department.

Nothing but admiration may be expressed for the work of the new department. In two years a new branch of the city government has been organised. Its machinery created and a force of about 400 employees trained, disciplined, and educated; far-reaching and important advances in legislation have been secured as a result of the department's action, and radical and vicious attempts to break down the tenement laws defeated.

Living accommodation for 16,768 families, or 83,840 persons, has been provided in sanitary, comfortable, and decent houses, each one of which has been built according to law; notorious evasion of and non-compliance with the laws have given place to their complete, uniform, and impartial enforcement; the evil of prostitution has been practically abolished in the tenement houses; 337,246 inspections have been made, 55,055 violations filed, 21,584 repairs made to plumbing, 13,617 water-closets cleaned, 11,611 accumulations of filth removed from cellars and other parts of such buildings, 13,732 ceilings cleaned, 15,364 walls cleaned, 10,060 unsafe wooden floors

removed from fire escapes and new iron floors substituted, 1,701 fire escapes erected on buildings that were before without this protection.

The registration of 44,500 owners' names has been secured, thus fixing the responsibility for bad conditions in the tenements; contagious disease has been checked and prevented; 32,825 citizens' complaints have been investigated, and the conditions complained of remedied; and an important tabulation and presentation of the population in every tenement house block in the Borough of Manhattan has been prepared that will be of incalculable value to the city.

The existing tenement houses have been frequently and systematically inspected; foul cellars have had the accumulated filth of years removed; defective and insanitary plumbing, which had apparently existed for long periods, has been remedied; houses unfit for human habitation vacated; hundreds of houses have been radically reconstructed and improved; light has been let into dark rooms; vile yard privies and privy sinks have been removed and the whole sanitary condition of the city raised to a higher standard. The results of this work are clearly reflected in the reduced death rate, which in 1902 was 18.7, as compared with 20.0 in 1901, and in the first eight months of 1903 has been reduced to 18.0.

All this has been done, and Mr. De Forrest and his splendid staff of workers deserve warm praise for their civic services.

The citizens of New York and other great American cities will be wise, however, if they learn the greater wisdom of preventive measures. Fifty years ago a handful of wise men, animated by the spirit of social service which inspired our Lord Shaftesbury, could have saved New York from this colossal disgrace. Great Britain has, happily, escaped the worst evils of the tenement system, and we may well be thankful. If this thankfulness can be expressed in energetic work to sweep away every slum, and flood every home, however poor, with sunshine and air, we may yet be able to set our American cousins an example worthy to be followed and improved upon with that fine strenuousness we all so admire.

HENRY R. ALDRIDGE.

The ratepayers of Penge last Thursday received a pleasant surprise for Easter. Some four or five years ago Penge was transferred from the London County Council area to Kent. In consequence, certain adjustments had to be made. The London County Council claimed from Penge the sum of close upon £80,000. An inquiry took place at Spring Gardens about two months ago, and on Thursday the Penge Council received the result of the award. Instead of having to pay the London County Council the sum of £80,000, Penge has to receive from the London County Council a sum of nearly £5,000.

There is another revolt in the air. It is that of the rural councils against having to pay for the upkeep of roads damaged by motor-car traffic. While Surrey is talking, a Sussex rural district council has decided to ask the Government to take over the upkeep of the main roads, especially as the increase of traffic is of no benefit to rural districts. It is the Cuckfield local authorities who have taken up this attitude. They have three main roads in their district, and it was stated at a council meeting that the roads were worn more in six weeks by motor traffic than they used to be worn in a year by ordinary traffic. The local rates had increased by 50 per cent., and a great portion of that was due to the cost of the roads. If highways were made up one month they were in ruts the next. People were afraid to be on the roads, and anything like enjoyment of rural roads was done away with. Motorists only paid "a mere flea bite" for their licenses. By a majority of two to one, Cuckfield Council has determined to ask the Government to pay for the damage to the roads caused by motor-cars.

NOTES AND ANSWERS.

What Compensation Should be Paid to Officers When a Burial Board is Taken Over by the Borough Council? Controlling the Parish Hall. The Law as to the Closing of Streets and Passages Without an Order from Quarter Sessions. Public Markets and the Rights of the Borough Council. Public Libraries Liable for Rating.

[BY A BARRISTER.]

718. — BURIAL BOARD TAKEN OVER BY BOROUGH COUNCIL — Compensation to Officers — Relation of Vestries to Burial Boards.

Should the town council take over the Burial Board under the powers conferred upon it by the Act of 1894, can you inform me what officials, if any, would have to be compensated? I presume the vicar of the parish would continue to have his fees. Would the collector and other officials be entitled to compensation for loss of office? Can you inform me under what Act of Parliament the vestries are authorised to deal with the Burial Boards, or of any Act of Parliament dealing with the powers of the vestries generally? A letter has been received here from the Town Clerk of Liverpool, in which he states that "when his council took over the Kirkdale Burial Board no compensation was paid," as the officials were taken over at their present emoluments. I presume, if the Burial Board were taken over by the Town Council of this borough the charges for burials would cover any expense that might be incurred, as there would be a saving from having one governing body instead of two, as at present.—"E.S."

[Note.—Will our correspondents, in sending any future queries, write on one side only of the paper?]

Under Sec. 62 (1) of the Local Government Act, 1894, where there is in any urban district, including a borough, any authority constituted under any of the "Adoptive Acts" (these include the Burial Acts), the council of that district may, by resolution, transfer to itself the powers, duties, property, debts, and liabilities of that authority, and thereupon such council shall be the successor of that authority. If the borough council in this case take over the local Burial Board, in pursuance of the above-cited sub-section, all the existing officers of such Board will, in the first instance, become officers of the Council (see Sec. 81 (1) Local Government Act, 1894), and should it be desired to abolish any office, compensation must be paid in accordance with Sec. 120 of the Local Government Act, 1888, as applied by Sec. 81 (7) of the Local Government Act, 1894, to officers existing at the date of the latter Act coming into operation. It is not clear that the compensation thus provided to meet the case of "existing officers" would apply in the case of those officers who have been appointed since 1894, and the council, in such case might apparently abolish any office taken over from the Burial Board on giving due notice to the present occupant, provided he had been appointed since the Act of 1894 came into operation. The vicar or incumbent of the parish for which a burial ground has been provided under the Burial Act of 1852 still retains the exclusive right to perform the burial service over the bodies of the parishioners buried in the consecrated part of such ground, or to receive the like fee upon a burial as he would be entitled to if he had performed the service, in case his services are not required, and due notice in this behalf has been given him. This rule does not hold where the burial takes place under the Burial Act of 1880 in any burial ground provided after the passing of the Burial Act, 1900. Further, the last-mentioned Act abolishes the incumbent's right to such fee altogether in any burial ground after present incumbencies, or after the period of fifteen years from the date of the Act, whichever may be the longer. The Burial Act of 1850, which at first applied only to the Metropolis, but was made of general application (excepting certain sections) by the Burial Act of 1853, empowered the vestry of any parish to resolve that a burial ground should be provided under that Act, thereupon (it was enacted) such vestry shall appoint a Burial Board to provide a burial ground and administer the business connected with such burial ground on behalf of the parish.

719.—TOWN COUNCIL'S CONTROL OVER THE PUBLIC USE OF A PARISH HALL BUILT IN ACCORDANCE WITH THE BYE-LAWS.

A new parish hall has been erected, which it is proposed to use for parochial and public meetings and entertainments. The plans were passed by the town council before the building was erected, and the work has been carried out in accordance with those plans. Has the council power (other than that of refusing to license the building for stage plays) to prevent the building from being used for public entertainments for which a dramatic license is not required, on the ground that extra exits are required?—"Parochial."

The "Parish Hall" referred to appears to have been erected by private individuals or by a company for the purpose of letting it for public purposes and entertainments, and has not, we understand, been provided by the town council or any other local authority. The council has approved the plans of the building, such plans being, presumably, in accordance with the local building bye-laws, and the building, including the "extra exits," has been erected in accordance with these plans. We assume that when the plans of the hall were submitted to the council, that body had before it full information as to the purposes, including those of public entertainment, for which it is proposed to utilise the hall. This being so, it is, in our opinion, not competent for the council now to withdraw the approval given to the plans of the building on the ground that extra exits are required in connection with the use of the hall for public entertainments (c.f. "Slee v. Mayor, &c., of Bradford" (27 B.P., 612), and "Masters v. Pontypool Local Board" (9 Ch.D. 677), which cases, however, related to decisions of the local authority under Sec. 155 of the Public Health Act, 1875, as to the building line). On the other hand, the fact that the local authority has approved of the plans, will not protect the builder if it can be proved as a fact that the hall does not comply with the bye-laws applicable to this class of buildings in respect of the "extra exits" or otherwise ("Jabbicom v. King, 1899. 1 Q.B., 441).

720.—MAY "NEW STREETS" NOT TAKEN OVER BY THE LOCAL AUTHORITY BE CLOSED WITHOUT THE AUTHORITY OF QUARTER SESSIONS?

A builder bought a piece of land, bounded on every side by a public highway, which he laid out as a building estate. He constructed a number of streets (unadopted), and built a number of cottages, with back passages, &c., according to the building bye-laws of the district. Some time afterwards, a company purchased the whole of the property, for the purpose of works, which necessitated the demolition of the cottages. Is the company entitled to close

(1) the unadopted streets,

(2) the back passages (which are "streets" within the meaning of the Public Health Act, 1875), or must an application be made to Quarter Sessions for an order to close the same?

Both the unadopted streets and the back passages are "streets" within the definition contained in Sec. 4 of the Public Health Act, 1875. Having been laid out in conformity with the local bye-laws, they must be regarded as having been thereby dedicated to the public, though still repairable at the expense of the owners of the property fronting or adjoining, by reason

of the fact that the streets have not been adopted by the local authority.

Under the Highways Act of 1835, provision is made for the stopping up or diversion of "highways" by an order of Quarter Sessions after certain formalities have been complied with. The definition of "highway" in that Act is a wide one. It is to be understood as including "all roads, bridges (not being county bridges), carriage-ways, cart-ways, horse-ways, bridle-ways, footways, causeways, churchways, and pavements." Having regard, therefore, to the constructive dedication to the public of the unadopted "streets" and "back passages" referred to by our correspondent, and to the definition of "highway" in the Act of 1835, it seems to us that the company which has acquired the property in question cannot close these streets and passages without going through the usual procedure and obtaining an order of Quarter Sessions.

RECENT LEGAL DECISIONS.

Rights of Borough Council in Public Market—Have the Public a Right to Vend Marketable Goods Without Payment of Tolls?—"Mayor and Council of Woolwich v. Gibson and Others."

An interesting case on public markets involving the consideration of ancient charters, as well as modern Acts of Parliament, was decided by Mr. Justice Swinfen Eady last week in the Chancery Division of the High Court. The plaintiffs were the Mayor and Councillors of the Borough of Woolwich. They claimed to be owners of a market at Plumstead, and sought to restrain the defendants, being certain members of the public, from hawking, selling, or offering, or exposing for sale in the Borough of Woolwich, except in their own premises, any commodities usually sold in public markets, unless such commodities were offered for sale in the market place of the borough, and after payment of the usual tolls. The plaintiffs traced their right of holding a public market at Plumstead, by purchase, from those entitled under a Charter granted by Henry III. to the Abbot and convent of St. Augustine.

Mr. Justice Swinfen Eady in his judgment, pointed out that the plaintiff council had made out a *prima facie* right to manage the Plumstead market, and to take the tolls, and then proceeded to weigh the case for the defence. The defendants contended that an ancient franchise should be presumed on their behalf as having been vested in trustees or in someone in trust for the inhabitants of "the vil. of Plumstead," or that, if the charter remained outstanding, some right had been granted by the persons entitled to it, to the inhabitants of Plumstead to hold the market. There was no right under the Charter to take tolls, and it had not been suggested that this right arose before 1903 (under a local Act of that year). It had been proved that for a long period persons had sold fruit and vegetables in the market without paying tolls, and it was argued for the defendants that this was done by virtue of a right vested in the inhabitants. The Court, however, considered that the evidence pointed the other way. His lordship pointed out that the persons who had sold in the market had done so merely as members of the public, and not by virtue of any particular right, and that it could not, therefore, be presumed that a charter had been granted to them. Sec. 166 of the Public Health Act, 1875 (to which reference had been made on behalf of the defendants), as to the provision of a market place, &c., by an urban authority, contained a proviso, that "no market shall be established in pursuance of this section so as to interfere with any rights, powers, or privileges enjoyed within the district by any person without his consent." It was contended that the defendants were enjoying the right of selling without payment of tolls, and that, therefore, that right was saved by the above quoted proviso. The Court, however, held that the "rights, powers, or privileges" referred to meant those acquired adversely to the rest of the world and peculiar to the individual, and that the defendants who merely sold as members of the public, had not acquired rights in this sense, and accordingly gave judgment against the defendants, and granted the injunction applied for against those of them who claimed the right to sell without payment of tolls.

Are Public Libraries Provided by Local Authorities Liable to be Rated?—"The Corporation of Liverpool v. the West Derby Union Assessment Committee and the Wavertree Overseers."

The Corporation of Liverpool had provided the free public library, whose rateability was now in question (together with others), under its statutory powers, and placed it under the control of the Libraries and Museums Committee to which the Corporation delegated certain powers. In 1899 the committee obtained a certificate of exemption of the lands and buildings occupied in connection with the library, from payment of rates, and this certificate was duly enrolled at the Quarter Sessions for the City of Liverpool. In spite of this, the overseers of the parish concerned, and the Union Assessment Committee, included the property in the valuation list, and rated it at £255 nett rateable value. By consent of the parties the rating was confirmed by Quarter Sessions, subject to a special case, which now came up for consideration by a Divisional Court consisting of Mr. Justice Kennedy and Mr. Justice Ridley. For the Corporation it was contended that there was no rateable occupation of the library, that the Corporation was merely custodian for the public; and that the public was not a rateable occupier; that the library was not a subject of "beneficial occupation"; and that the Library Committee was a "society," and the library a "literary institution," so as to bring it within the exemption provided for under the Scientific and Literary Societies Act of 1843. On the other hand, it was contended for the overseers that the case of "Mersey Docks v. Cameron" (11 H.L.C. 443), showed that because a building was held on behalf of the public it was not therefore exempt from rates; that the Corporation, to whom the library belonged, was not "instituted for purposes of science, literature, or the fine arts, exclusively; and that the library was not supported by voluntary contributors so as to bring it within the Act of 1843 above referred to. The Court accepted this view of the case, holding that the Corporation beneficially owned and occupied the premises, though it acted in this respect for the public; and that it was only where the property belonged to the public that there was an exemption from rating. The Court pointed out that there were several difficulties in the way of applying to the library the Act of 1843. Even if the Corporation or the committee could be described as a "society," the library was not supported by voluntary contributions, but only partly aided (as had been shown in evidence), by a grant from the Liverpool Education Committee of £250 per annum, and by gifts of books. On these and other grounds the Court came to the conclusion that the library was rateable, and gave judgment accordingly in favour of the overseers and the Assessment Committee.

LANCASTER MARKET SCHEME ABANDONED.

At the Lancaster Town Council meeting on Wednesday, an end was reached of a scheme which has been in the air for seven years. The Corporation originally bought a block of property with the King's Arms Hotel in the centre. It sold the hotel to Mr. Mitchell, a local brewer, and retained the other portion of the property with the intention of erecting a large covered market behind the hotel. On Wednesday it was decided that it was "not desirable" to erect a market, and as compensation to Mr. Mitchell the Corporation agreed to give him 3,500 yards of the land at the rear of the hotel.

UNEMPLOYED IN HACKNEY.

GAUGING THE EXTENT OF DISTRESS.

STATE, OR FURTHER MUNICIPAL, ACTION.

Hackney, with its population of 220,000, had 4,518 unemployed. That, in brief, is what has been gleaned by a very careful door-to-door canvas made during the past winter in the borough, in order to ascertain the extent of the want of employment, and undertaken and carried out upon similar lines to those adopted in the work of registration.

As a result of the conference of metropolitan guardians, held in October last, at which Mr. Long outlined his scheme for dealing with the unemployed in London, a direct stimulus was given to public opinion on this important subject, and the borough councils and boards of guardians in London, acting on Mr. Long's idea, took up the question with energy. In pursuance of a resolution passed by the Hackney Borough Council, the Joint Committee in the borough, at a meeting held on Dec. 9, 1904, proceeded to elect twelve inquiry officers and two investigators out of thirty applicants who appeared before it for the purpose of selection.

Three days later, the inquiry officers commenced their big task, which was completed on Jan. 31, 1905, a full canvass of the whole borough being made. During the course of the canvass, 33,740 houses were visited, and information obtained as to the cases of unemployment, complete information as to which is set out in a series of tabulated statements just issued by way of report by the Joint Committee. The census returns for 1901 give the employable population of fifteen years of age and upwards working at their various trades and callings as 98,076—63,838 males and 34,238 females. The unemployed found when the inquiries were made number 4,315 males and 203 females, a total, as already mentioned, of 4,518, showing a percentage of 6.74 on the employable male population, and a percentage of .09 on the female.

In 1901, the number of inhabitants was 219,272, the percentage of unemployed for the whole borough was consequently 2.0. The total number of houses being 33,740, the percentage of the males employed per house works out at 1.89, and the female 1.0. The total population per house for the whole borough is 6.50.

It is shown that 1,355 persons were affected by the want of employment in the North Parliamentary Division; 3,135 in the Central Division; and 9,684 in the South Division, making a total of 14,174 for the whole Parliamentary borough. They were as follows:—2,971 married men, 2,971 wives, 6,685 children under sixteen, 143 widowers, 60 widows, 1,201 single men, 121 single women, and 22 married women. These figures show a percentage of 14.45 on the employable population of 98,076.

This carefully-compiled report ought to prove of considerable use when the vexed question of the unemployed is dealt with on a permanent basis. Year by year, unemployment presses more heavily on the community, especially in the poorer metropolitan boroughs.

In the report is the interesting statement that the Joint Committee consider the problem of the unemployed "a matter that can only be satisfactorily dealt with by the State, or municipal authorities having more extensive powers than are at present at their command, providing permanent remunerative and productive work for the unemployed."

The first annual report of the Light Railways Committee of the Gloucester Corporation has just been issued. The result of the eleven months' working shows that the revenue amounted to £13,908, and that after paying operating expenses (£9,741) and interest on capital (£3,921) there is a balance of £245 to carry forward to next year's account.

VITAL STATISTICS FOR 1904.

DECREASING BIRTH - RATE: ADVANCING DEATH-RATE.

THE Registrar-General on Wednesday issued his annual summary of the births and deaths and causes of death in London and other large towns for the year 1904.

The seventy-six great towns of England and Wales dealt with in the weekly returns for 1904 contained an estimated population of 15,271,287 persons in the middle of that year. The births registered in this population in the period of fifty-two weeks ended December 31, 1904, numbered 442,788, and were equal to a rate of 29.1 per 1,000 of the population. This rate was 0.6 per 1,000 below the corresponding rate of 1903, and 0.9 per 1,000 below that of 1902.

The deaths registered in the same period numbered 262,559, and corresponded to a crude rate of 17.2 per 1,000, or 0.9 per 1,000 above the rate of 1903. The death-rate in 1904, calculated without reference either to sex or to age, varied as usual considerably in the several towns, the lowest being 8.4 per 1,000 in Hornsey and the highest 22.6 in Liverpool.

The 262,559 deaths at all ages included the deaths of 70,888 infants in their first year of life. In the seventy-six great towns infantile mortality, measured by the proportion of deaths under one year to registered deaths, averaged 160 per 1,000. The towns with the lowest rates of infantile mortality were Hornsey 87, King's Norton 100, Hastings 108, Bournemouth 111, and Wallsend 114. The towns with the highest rates were Salford 192, Liverpool,196, Birmingham 197, Stockport 203, Hanley 212, and Burnley 229.

The death-rate from the chief epidemic diseases averaged 2.49 per 1,000 of the population. The highest rates among the great towns were 4.10 in Hanley, 4.17 in Bootle, 4.21 in St. Helens, 4.37 in Salford, 4.57 in Warrington, and 4.66 in Liverpool.

In the middle of the year 1904 the 142 other English and Welsh towns contained an estimated population of 4,693,955. The births registered in these towns numbered 129,665, and were in the proportion of 27.5 per 1,000 of the population. The registered deaths were 73,403 in number, and were equal to a rate of 15.6 per 1,000 persons living.

Disregarding sex and age differences, the local death-rates varied considerably. The lowest were 9.6 in Aldershot, 10.2 in Eastbourne, 10.3 in Withington, 10.7 in Bromley, and 10.8 in Beckenham and in Kettering. The highest rates were 21.0 in Burslem, 21.6 in Ince-in-Makerfield, 21.9 in Pemberton, 22.4 in Batley, 22.6 in Aberdare, and 25.0 in Tunstall.

The 73,403 deaths at all ages in the 142 towns included the deaths of 19,947 infants under one year of age. Calculated on the registered births, these deaths corresponded to a rate of 154 per 1,000. The lowest rates of infantile mortality were 88 in Reigate, 81 in Moss Side, 93 in Eastbourne and in Withington, and 95 in Taunton. The highest rates were 226 in Swinton and Pendlebury, 228 in Pemberton, 238 in Tunstall and in Batley, 239 in Aberdare, and 266 in Farnworth. The last-mentioned town was added to the list of smaller towns in 1902. In each year since that date it has shown the highest infantile mortality in the list.

The principal epidemic diseases caused an average death-rate of 2.03 per 1,000 in the 142 towns. The lowest rates were 0.37 per 1,000 in Taunton, 0.45 in Torquay, 0.53 in Barry, 0.56 in Brighouse, 0.60 in Eastbourne, and 0.64 in Cheltenham. The highest rates were 4.28 in Farnworth, 4.43 in Barnsley, 4.91 in Pemberton, 4.92 in Swinton and Pendlebury, 5.47 in Wednesbury, and 5.99 in Batley.

"TO SAVE THE BABY."

Huddersfield Scheme Adopted.

SINCE Mr. Alderman Broadbent (a brother of Sir W. Broadbent) offered to give a sovereign to every infant born in the district of Longwood during his mayoralty which should reach the age of twelve months, the health authorities of Huddersfield have been giving earnest consideration to the question of preserving infant lives.

The Town Council on Wednesday adopted an interesting scheme with this object in view. Briefly, the scheme provides that a shilling shall be paid to the first person notifying the medical officer of health of the birth of a child within forty-eight hours of such birth; that the medical officer shall draw up for circulation amongst parents detailed advice to mothers, and draw public attention to the subject of infantile mortality; that two women visitors be appointed to visit homes where births have occurred, give advice as to the rearing and nursing of children, make inquiries into the cases of infant mortality, investigate cases of illness amongst school children, and inspect workshops where women are employed; and that a day nursery be experimented with for twelve months, at which milk shall be supplied specially for feeding infants under one year of age.

The Mayor of the borough has had a considerable share in drafting the scheme. His great point is that many mothers who are employed in mills are not able to feed their infants properly owing to following industrial employment as soon as convalescent. Inferior milk being thus used as a substitute for natural food has caused the loss of many lives.

MOTOR 'BUSES v. TRAMS.

Chester Decides for Trams.

THE Chester Town Council, on Wednesday, considered whether it should extend its electric tram system, at a cost of about £17,000, or whether it should purchase some motor 'buses.

The electrical engineer, in a report on the subject, said he thought the electric tramcar had a great future before it, and very little to fear from the motor omnibus. That the motor 'bus had made great strides could not be denied, and there was every reason to believe it would yet be greatly improved upon in the near future, but its field of usefulness was not in the same category as the electric tramcar.

The working expenses of the motor 'bus were so heavy that it was difficult to see how it could profitably be used in such places as Chester. He felt confident that tramways giving a five to ten minutes' service could be worked more efficiently and infinitely more cheaply than motor 'buses giving the same service.

Mr. W. Ferguson moved that the Council should extend the electric tram system, and Mr. D. L. Hewitt seconded. Mr. John M. Frost proposed that the Council purchase some motor-cars. This was seconded by Dr. Archer.

Only five voted in favour of motor 'buses.

THE Sheffield City Council, at its meeting on the 8th March last, made the following bye-law:—

"No person shall spit on the floor, sides, or wall of any public carriage, or of any public hall, public waiting room, or place of entertainment, whether admission thereto be obtained upon payment or not, or of any enclosed and covered market.

"Any person offending against this bye-law shall be liable to a penalty not exceeding five pounds."

A GENTLEMAN, with many years' business experience, seeks an Investment in either Brewery, Gas, Water, Railway, or Tramway Company, where a large holding in Preference or Debenture Shares would secure a seat on Board of Direction. Write, "Genuine," care of Gould's Advertising Agency, 54, New Oxford Street, W.C.

Official Advertisements.

COUNTY BOROUGH OF DEVONPORT.

GAS ENGINEER AND MANAGER.

THE Devonport Corporation invite applications for the APPOINTMENT of an experienced and qualified man as ENGINEER and MANAGER of their Gas Works.

Salary, £450 per annum; age not to exceed 45.

Appointment determinable by three months' notice on either side.

The gentleman appointed must devote the whole of his time to the duties of the office.

Applications, stating age, experience, and qualifications, with copies of not more than three recent testimonials, to be sent to me on or before Monday, the 8th day of May, 1905, endorsed, "Gas Engineer."

R. J. FITTALL, Town Clerk.

Municipal Offices, Devonport,
27th April, 1905.

LITTLEMORE PAUPER LUNATIC ASYLUM, NEAR OXFORD.

THE Office of CLERK of the ASYLUM and HOUSE STEWARD being vacant, Applicants for the Office are invited to forward to the undersigned, before the 13th of May next, a statement of their qualifications, stating age, with not more than three testimonials.

The Officer will be required to undertake the duties of the office at once, and to reside within a convenient distance of the Asylum.

The salary is £150 a year, with certain rations. The duties of the Clerkship consist in keeping the accounts generally, conducting correspondence, and making returns, &c.; and the duties of the Stewardship comprise a supervision of the daily provisions, and the charge of the various stores, and otherwise, as prescribed by the rules of the Institution.

Canvassing personally, or by letter, is prohibited.

THOMAS M. DAVENPORT,
Clerk of the Committee of Visitors.

County Hall, Oxford,
20th April, 1905.

URBAN DISTRICT COUNCIL OF WOOD GREEN.

CONTRACT FOR DISINFECTANTS.

THE Urban District Council of Wood Green are prepared to receive TENDERS for the SUPPLY (for a period of Twelve Months) of DISINFECTANTS.

Forms of tender may be obtained upon application to Mr. A. E. Adams, Sanitary Inspector.

Sealed tenders, which must be on the printed forms supplied, properly endorsed, "Tender for Disfectants," and addressed to me, and delivered at this office not later than five o'clock in the afternoon of Wednesday, the 3rd May, 1905.

The Council reserve the power to accept the whole or part of a tender, and do not bind themselves to accept the lowest or any tender.

J. W. BRITTON, F.C.I.S.,
Clerk of the Council.

Town Hall, Wood Green,
18th April, 1905.

URBAN DISTRICT COUNCIL OF WOOD GREEN.

TO CLOTHIERS, TAILORS, &c.

THE Urban District Council of Wood Green invite TENDERS for the SUPPLY, as required, of PARK-KEEPERS', &c., UNIFORMS.

Sealed tenders, accompanied by Samples of Cloth, to be delivered to the Town Hall, Wood Green, N., not later than 5 p.m. on Wednesday, the 3rd May, 1905.

The Council do not bind themselves to accept the lowest or any tender.

By order.

J. W. BRITTON, F.C.I.S.,
Clerk of the Council.

Town Hall, Wood Green,
April, 1905.

Official Advertisements.

BOROUGH OF EAST HAM EDUCATION COMMITTEE.

TO IRON STAIRCASE BUILDERS AND OTHERS.

TENDERS are invited for an IRON EMERGENCY STAIRCASE at New Beckton School.

Plans can be seen, and specification obtained, at the Office of Mr. R. L. Curtis, 11 and 12, Finsbury Square, E.C.

Each contractor will be required to deposit with his tender a £5 Bank of England note, or crossed cheque of equal value, which will be returned on the signing of the contract by the successful tenderer.

Tenders, on the printed form, must be delivered to me not later than 4 o'clock in the afternoon of Thursday, 11th May, 1905, and should be endorsed, "Tender for Emergency Staircase."

The Committee do not bind themselves to accept the lowest or any tender.

The person whose tender is accepted will be bound by his contract to pay the recognised Trade Union rate of wages and to observe the recognised Trade Union hours of labour for all work done under such contract, subject, in case of non-observance, to being disqualified for future tendering.

H. C. PADGETT,
Secretary.

Education Office,
East Ham, E.,
1st April, 1905.

CITY OF NORWICH.

WOMAN SANITARY INSPECTOR.

THE Norwich Corporation invite applications for the APPOINTMENT of a WOMAN SANITARY INSPECTOR, and Health Visitor, who must possess the certificate of the Royal Sanitary Institute, or its equivalent.

The person appointed will be expected chiefly to visit the homes of the poor, give instructions in the feeding of infants, and the home hygiene of milk, inspect dwellings of outworkers, and generally to act under the instructions of the Medical Officer of Health.

Salary, £75 per annum, and £10 per annum in lieu of uniform.

Application marked, "Woman Inspector," stating age and experience, with copies of three recent testimonials, to be delivered to the undersigned not later than Monday 8th May, 1905.

ARNOLD H. MILLER,
Town Clerk.

Guildhall,
Norwich,
20th April, 1905.

LONDON COUNTY ASYLUMS.

THE Asylums Committee of the London County Council invite applications for the APPOINTMENT of CHIEF ASSISTANT CLERK in their office. Salary, £300 a year, rising by £20 a year to a maximum of £400. Candidates must be capable of writing minutes, reports, &c., and attending Committees if required. Age not to exceed 40 years. The appointment will be subject to a medical examination.

Forms of application containing particulars and conditions may be obtained from the undersigned, and such forms duly filled up and accompanied by copies of not more than three recent testimonials are to be delivered not later than 12 o'clock noon on Saturday, 6th May, 1905. Selected candidates will be written to. No canvassing permitted.

H. F. KEENE,
Clerk of the Asylums Committee.

Asylums Committee Office,
6, Waterloo Place, S.W.,
19th April, 1905.

AGENTS REQUIRED in unrepresented districts for the Imperial Accident, Live Stock, and General Insurance Co., Ltd. Estd. 1878. Departments: — Personal Accidents. Carriage and Drivers' Accidents. Horse and Cattle Insurance. Claims paid £300,000. Address Mr. B. S. Essex, Manager, 17, Pall Mall East, London, S.W.

Official Advertisements.

METROPOLITAN BOROUGH OF ST. MARYLEBONE.

WORKS DEPARTMENT.

TO TIMBER MERCHANTS.

NOTICE is Hereby Given, that the Council of the Metropolitan Borough of St. Marylebone invite TENDERS for the SUPPLY and DELIVERY of about 450,000 of 3in. by 5in. by 9in., or about 504,000 of 3in. by 5in. by 8in. best SWEDISH YELLOW DEAL CREOSOTED PAVING BLOCKS.

Tenders to be delivered at the Town Hall, Marylebone Lane, Oxford Street, W., on or before four p.m. on Monday, 15th May. Four uncreosoted samples of the blocks to accompany the tender.

Further particulars may be obtained of Mr. J. Paget Waddington, M.Inst.C.E., Borough Surveyor, and forms of tender may be had on application at the Town Hall.

The Council will not be bound to accept the lowest or any tender.

By order.

JAMES WILSON,
Town Clerk.

Town Hall,
Marylebone Lane, Oxford Street, W.,
April, 1905.

BOROUGH OF SOUTHEND-ON-SEA.

APPOINTMENT OF BOROUGH ELECTRICAL ENGINEER AND GENERAL MANAGER OF TRAMWAYS.

THE Corporation invite applications from duly qualified Electrical and Mechanical Engineers for the APPOINTMENT of BOROUGH ELECTRICAL ENGINEER and GENERAL MANAGER of the TRAMWAYS.

The Electric Lighting and Tramways Undertakings are under the control of the Corporation, and are worked jointly. The Electric Generating Station serves both purposes.

The commencing salary will be £400, rising by annual increments of £25 to £500 per annum (there is a probability of the tramways service being extended, in which case the salary may rise beyond the limit of £500).

The gentleman appointed will have to devote the whole of his time to the duties of the office, and will not be allowed private practice. It is essential that applicants should have had experience, not only as Electrical Engineer, but also in the management of tramways.

The Corporation provide offices and staff.

Applications must be made on forms obtainable from the undersigned, and the same endorsed, "Electrical Engineer," and accompanied by copies of three recent testimonials (which will not be returned), must be delivered at my office before 10 o'clock a.m., on Monday, the 8th May.

Canvassing members of the Council, directly or indirectly, will disqualify.

By order.

WILLIAM H. SNOW,
Town Clerk.

Southend-on-Sea,
19th April, 1905.

The most Habitable, Durable, and Economical
IRON & WOOD BUILDINGS
ARE
Hospitals, Sanatoria, Schools, Chapels — **SPEIRS** — Bungalows, Pavilions, Halls, Shelters
Extended terms of Payment if desired.
DRY EARTH CLOSETS
Designs, Estimates, free on application to
SPEIRS & CO., 125m, West Regent Street, GLASGOW.

WORK ON GERMAN MUNICIPALITIES.

To Municipal Authorities, Engineers, and Architects.

DIE DEUTSCHEN STÄDTE.

Unter Mitarbeit hervorragender Fachmänner herausgegeben von

Prof. Dr. jur. et phil. ROBERT WUTTKE.

2 vols., cloth, ***30s.***

Published by FRIEDRICH BRANDSTETTER, in Leipzig.

This Official Work on the German Towns, based upon the result and experience which an exhibition of the towns in Dresden in 1903, taught, was reported upon in the *Municipal Journal*, No. 635, p. 310, and also in the *Standard* of the 13th January. Mr. Sidney Low fully acknowledges the value of this first-class book of reference for English readers written by 28 experts. Mr. Low says in his extensive article:—"The work is crammed with information on every subject of interest in municipal affairs, all digested and analysed with scientific precision, and the deductions from the facts are carefully drawn in a series of elaborate essays."

The two volumes (950 pp., 8vo., text, and 455 pp., 4to., illustrations) are kept in stock by

Mr. B. T. BATSFORD,
94, High Holborn,
London, E.C.,
to whom please apply.

Demy 8vo, Cloth Boards, price 5s. net, post free.
RATEABLE MACHINERY
By GEORGE WASTALL, F.S.S., Rating Surveyor, &c.
Invaluable as a work of reference to Rating Authorities, Guardians of the Poor, County and Borough Councils, Railway, Tramway, Electric Lighting, Gas and Water Companies, Solicitors, Surveyors, Auctioneers Manufacturers, and all users of machinery.
London: Philip Allen & Co., 87, Chancery Lane, W.C.

EAGLE INSURANCE COMPANY.
(Established 1807)
LIVES.
ANNUITIES.
Head Office: 79, PALL MALL, LONDON, S.W.
CITY: 41, Threadneedle Street, E.C.
Branches: Eagle Insurance Buildings in BIRMINGHAM, BRISTOL, LEEDS, MANCHESTER.

The **Surplus** disclosed at the Valuation (1902) produced an average **Cash Bonus** of 30 per cent. of the Premiums paid during the Quinquennium; being a return of one and a half Premiums.
The Company's **Debenture Policies**, with **Guaranteed Benefits**, afford an attractive form of Insurance in the Non-Participating Class, at very moderate rates.

Apply for XXth Century Prospectus, showing Simple and Liberal Conditions.

BRITANNIC ASSURANCE COMPANY, Ltd.
(formerly called British Workman's and General).
Established 1866.
INDUSTRIAL & ORDINARY BRANCHES.

ANNUAL INCOME	at rate of	£1,000,000
RESERVE FUNDS	nearly	£1,400,000
CLAIMS PAID		£4,300,000

Gentlemen able to influence good business will find the Company's Agency Terms very remunerative. Agency Terms and Prospectuses on application to
S. J. PORT, Secretary.
Chief Offices: Broad Street Corner, Birmingham.

A FACT FOR ADVERTISERS.

STRIKING SUCCESS

OF THE

ENLARGED SERIES

OF THE

MUNICIPAL JOURNAL.

The GUARANTEED BONA-FIDE SALES of the Municipal Journal for the first Four Weeks of March,

1905,

EXCEEDED BY

3,888 copies

the sales for the corresponding period in

1904.

TO MUNICIPAL AUTHORITIES.

First-class Orchestras, Military Bands, and Concert Parties provided *at minimum rates* for every kind of function, or for Season.

J. HERBERT JAY,
10 & 11, Jermyn Street, Piccadilly.
Telephone—6534 Gerrard.

"THE SCHOOL MANAGER."

A WEEKLY NEWSPAPER

FOR

EDUCATIONAL ADMINISTRATORS

ONE PENNY WEEKLY.

Indispensable to Members of Municipal and County Councils and especially to Members of Educational Committees.

SUPPLIED BY ANY NEWSAGENT.

"I consider it a marvellous educational pennyworth that ought to be in the hands of every educational authority in the country."—Chairman of a Tyneside Education Committee.

"I am doing all I can to push The School Manager, which has more real, live news in it than any other paper."—Secretary of a County Borough Education Committee.

5 & 6, Johnson's Court, Fleet Street,
LONDON, E.C.

BUILDS UP THE TISSUES.
30 times more nutritious than milk.

PLASMON

1/- Cookery Book post free for two stamps—Plasmon, Farringdon-street, London, E.C.

INFANTILE MORTALITY

AND

INFANTS MILK DEPOTS

BY

G. F. McCLEARY, M.D.,

Medical Officer of Health of the Metropolitan Borough of Battersea.

Crown 8vo, cloth, with 27 full-page Plates,
6s. net.

Glasgow Herald. "This is a book which we could well wish to see in the hands of every Medical Officer of Health."

Nottingham Guardian.—"The facts and figures presented in Mr. McCleary's opening chapters, and his volume, which contains a number of illustrations, is deserving of very careful study on the part of public authorities and others."

Spectator.—"A very valuable book."

P. S. KING & SON,
ORCHARD HOUSE, WESTMINSTER.

The Cream of Cocoas.

EPPS'S

Contains all the nutriment

COCOA

of the Choicest Nibs.

TO SUBSCRIBERS.

REVISED SUBSCRIPTION RATES for the New and Enlarged Series of the "Municipal Journal" (commenced 3rd March).

For the United Kingdom.
Post free.

Three Months	2s. 5d.
Six Months	4s. 9d.
Twelve Months	9s. 6d.

Abroad.

Six Months	6s. 6d.
Twelve Months	13s. 0d.

Cheques and Postal Orders to be made payable to Edward Lloyd, Limited, 12, Salisbury-square, London, E.C., and crossed London and "Westminster Bank."

MUNICIPAL JOURNAL

FRIDAY, APRIL 28, 1905.

NOTES AND COMMENTS.

East Ham Rate Revolt.

TIME will show whether the East Ham rate revolt is merely an incident or whether it is the commencement of a movement that will make history in local government. The event will depend in a large measure upon the manner in which the situation is dealt with by the authorities at Whitehall. That the position is exceptionally serious no one can for a moment deny. Here is a teeming industrial centre on the very borders of London where the local authority refuses to continue to administer the Education Acts, not on account of disputes with sectarians as to the maintenance of schools over which it has insufficient control, but on the broad economic ground that it cannot afford the expenditure. The terms of the resolution at which the East Ham Corporation unanimously arrived are in themselves significantly striking:—

> That in view of the heavy rates for National purposes raised locally, this Council is of opinion that the rate is unjust, as the borough of East Ham is under present conditions paying more than a double share towards these National purposes, more particularly in respect of education. That notice be given to the Prime Minister and the Board of Education that, as from June 1 next, this Council will decline to administer the Education Act.

The Education Committee followed up this resolution by one in almost identical terms, and notices have been given to the teachers and the staff generally, terminating their engagements. Thus the Government is faced with a situation that is unique in the annals of local government.

A Powerless Government.

THE revolt leaves the Government, for the moment, powerless. It cannot command a single legal weapon with which it can effectively deal with the situation. It cannot apply the Local Authorities' Default Act that was passed last year for the purpose of meeting the Welsh difficulty. The power given by this measure is merely that of recognising as valid the acts of managers of the schools, *providing they are acting as managers*, to pay the managers the expenses incurred, and to regard the money as a debt due to the Crown from the local education authority, and deduct it from any sums payable on account of Parliamentary grants. At East Ham the majority managers, except in the cases of one or two Voluntary schools, are the councillors themselves, and they have refused to perform any "acts" at all after the end of May. The Board of Education is therefore driven back upon the general authorisation contained in the Act of 1902 that "if the local education authority fail to fulfil any of their duties the Board of Education may, after holding a public inquiry, make such order as they think necessary for compelling the authority to fulfil their duty." These orders are enforceable by mandamus, a procedure which, even if effective, cannot become operative for some months. And the East Ham schools are to be closed as from the 1st of June—five weeks hence. How is the Government going to deal with the period intervening between the closing of the schools and the successful operation of the mandamus, assuming that the latter procedure *will* be successful, which is doubtful?

East Ham's Case.

UNLESS Whitehall meets this problem sympathetically it had better leave it alone altogether. The revolt is not so much an education revolt as a rate revolt—not quite the kind of thing the *Daily Mail* and *Daily Express* wanted when they set about their Spring campaign against the "municipal spendthrifts"—but still a rate revolt, with an economic basis and an economic bearing of the first importance. East Ham says that its poverty condemns it to the payment of too large a share of our national

and local expenditure. Because East Ham is a district crowded with poor inhabitants it has to pay more in rates than Kensington, with its rich inhabitants. The high rates of East Ham are not a necessary consequence of East Ham's being East Ham. Put the East Ham people in Kensington, and the Kensington people in East Ham, and the East Ham rates would go down and the Kensington rates would go up. Our present system of taxation is based upon a sliding scale under which the poorer the person the greater, proportionately, are his rates. There is nothing equitable in this system, but approximately the middle-class man is the most fairly assessed, and all above him in the social scale escape a large share of what they ought to pay, while all below him pay much more than they ought. East Ham is towards the bottom of the latter class, and it has at last entered its protest against defraying the whole of the cost of educating children who will, perhaps, make the fortunes of future residents of Kensington. The question of the limitations of local government boundaries, too, is concerned very closely with this East Ham *impasse*. Had the district been situate in London its charges for education would be spread over the whole of the county. Because it is just outside London, and a borough, it has to bear the whole of them itself. The fundamental mistake was made when education was at the outset regarded as a local service instead of a national. The Government is continuing the same blunder in its Unemployed Bill, and the same inequitable results will accrue, particularly to London. For the present it is possible that the difficulty will be covered by additional grants from the National Exchequer, and that the East Ham councillors will be in this way induced to carry on the administration. This, however, will not solve the problem, and the difficulties will recur until the quesion is grappled with in a thorough and statesmanlike way. The London County Council has really as strong a case as East Ham. It is educating children, not for the metropolis, but for the nation, and it is training teachers who, as soon as they become efficient, are tempted away from the capital to the provincial centres.

"Municipal Expenditure."

IT is amusing to note how half-hearted the campaign against "municipal trading" has become since the East Ham revolt was announced. The indignation of the reactionary papers has perceptibly diminished, for this is not the result they wanted. Had East Ham, instead of throwing off education, dropped its tramways, the reactionaries would have seen the millennium within measurable distance. Had Birmingham decided that after all it were wiser for the British Electric Traction Company to own the City's lines instead of the Corporation; had electric lighting concerns and gas enterprises been shed wholesale, these public-spirited organs would by this time have been welcoming the coming of the perfect day. As it is they are not interested. It would not pay the B.E.T. Co. to run elementary schools. Besides being out of the Trust's line of business, the venture would offer but little financial prospect to the directors and shareholders. So the agitation has for the moment dropped, notwithstanding a belated effort of the *Times* to keep it going. The leading organ on Wednesday published an interesting little homily upon the recent Government return respecting the London rates and the conviction of the town clerk of Holborn. High morals and low rates, it seems, go together.

> Those who defend municipal extravagance talk of the great works executed by public bodies. They are silent about the sediment of corruption, the contamination of municipal life too often accompanying rising rates.
>
> They sometimes increase not a little, it is to be feared, owing to the mixture of business and local politics, money-making and administration, which has already produced scandals, and is sure to produce many more.
>
> Economy in local government is not, as some modern teachers would have us believe, a virtue of small account. It is akin to purity and integrity and much else that is precious.

We had not heard of any "great works" executed by the Holborn Borough Council, and yet its town clerk fell. Poplar must possess quite a number of hardened criminals with its rate of 12s. in the £, and yet, somehow, we prefer the Poplar *régime* to that at Holborn. The *Times*, we think, has got a little mixed.

America and Municipal Ownership.

IT is curious that the American people, who from experience know "corruption" when they see it, should fly to the English system for release from the shackles of greedy private enterprisers. Our English "corruption" of which the *Times* talks in generalities, finds favour with the people of Chicago. We announced a week or two the great victory secured for municipal tramways in that city, and as though to contradict the Honourable Robert P. Porter, Judge Dunne, the new Mayor, made the following significant statement in a speech a few days ago:—

> If good results have been secured in Europe and Australia, why cannot they be secured in New York and Chicago and other cities of America?
>
> The movement in favour of municipal ownership of all public utilities has taken deep root among the intelligent people of this country.
>
> It is here to stay, and the politicians and people who ignore this sentiment must be prepared for a short-lived career before the people.

This was a speech made to the people of New York. Contrast it with a statement made by the Hon. Robert P. Porter before the British Association at Belfast two-and-a-half years ago:—

> In the 'forties and 'fifties an epidemic very similar to the present fever for municipal trading in England literally swept over the United States, and ended in bankruptcy and ruin.

Judge Dunne now says that politicians and people who ignore the American movement in favour of municipal ownership must be prepared for short-lived public careers. Was it a recognition of this fact that induced the Hon. Robert P. Porter to leave America?

Municipal "Remedies."

THE recent outcry has naturally produced suggestions for "remedy"—most of them exceedingly silly. But a letter from Alderman Gainsford, chairman of the Sheffield Water Committee and chairman of the Derwent Valley Water Board (for Derby, Leicester, Nottingham, Sheffield, and Derby County) deserves some attention. Alderman Gainsford's experience, "while it makes me distinctly favourable to municipal enterprise as a principle and within fair limits, leads me (especially in view of recent criticisms) to strongly advise two things."

> (1) The establishment of a department of municipal audit (separate, if possible, from the Local Government Board), to audit, and to some extent to control, municipal trading and loans—in sympathy with the objects, while carefully watching the means: and, especially, designed to bring the accounts of all such works (a) into intelligible uniformity of shape and (b) into thorough trustworthiness of results.
>
> (2) Some limitation upon borrowings, especially for purposes which may be classed as "optional," as distinguished from water supply, lighting, and sanitary objects.
>
> I think by these means confidence would be increased, good works would be helped, and mistakes would be prevented.

With suggestion number one very few municipal people will disagree. The responsibility for the non-application of an efficient audit system rests with the Government, and not the municipalities, as Alderman Gainsford knows. Suggestion number two is quite a different matter. It might be possible to impose a limit on municipal expenditure if every city and town and district started off from a common point. But some towns are well equipped municipally, whilst others are badly equipped. A limit that might produce no hardship in the one case might result in complete injustice for the other. Suppose, for instance, a corporation had an opportunity, which was not likely to recur—and such a case is of frequent occurrence—of purchasing a large area of land for open space purposes, and the limitation of borrowing restriction prevented the acquisition! The town would be handicapped at once and would be unable to offer the same residential advantages as an adjoining town, liberally supplied, perhaps, with open spaces. But there is another and even more serious objection. Take the case of tramways. It is becoming a common practice for municipal tramway systems to extend beyond the municipal boundaries, and it is a practice that should be encouraged. Glasgow is a case in point. Is a Corporation's expenditure to be restricted on account of an outlay a large part of which was incurred for laying lines outside the municipal area? The borrowing in such a case is not made for the area of the borrowing authority at all, but for outsiders. We should like to hear Alderman Gainsford's reply to these criticisms.

ROUND THE UNIONS.—IV.

An Enormous and Varied Work is Being Done Among the Poor of St. Pancras. The Need of Greater Classification and a New Movement Suggested to Metropolitan Boards of Guardians. An Old Man's Industrial Colony and Its Interesting Work. The Question of Medical and General Out-Relief and Its Careful Administration. The Indoor Sick and the Children.

THE methods by which the St. Pancras Board of Guardians deals with the poor from among the quarter of a million people whom it represents are, in many respects, most enlightened and up-to-date. This is not to say that the Board has found some new and brilliant way of treating the poor. Far from it. The true place of a board of guardians is as much as possible to retire into the background, and arrange its work so that the poor will not feel that it is working for them. And the Board realises that it is only by the most strenuous efforts to adhere, in the administration of relief, to the well-tried principles upon which the Poor Laws are based, that the growth of pauperism is stemmed, and suitable provision made for those for whom considerate, and even gentle treatment is needed rather than measures of repression. Some of the poor who have been stirred to independence by its action, however, may complain that its methods are not gentle; but those who are wiser than themselves know that kindness does not consist in giving help, until help becomes necessary. But when help is necessary, help should be adequate. The Chairman of the Board (Mr. Joseph Thornley, J.P., M.A.B.), and other members feel that there is not sufficient diversity in the treatment of the various classes that come under their influence, and they have availed themselves, possibly more than any other Board in London, of the institutions of the M.A.B. The various classes of persons chargeable to St. Pancras are distributed over the following establishments:—Two workhouses, two infirmaries, a receiving home for children, "St. Margaret's," Leighton Road, N.W.: separate schools at Leavesden, training ship "Exmouth," five seaside convalescent homes, twenty-two lunatic asylums, six imbecile asylums, two fever and smallpox hospitals, forty-seven institutions for the blind, deaf and dumb, and other special institutions, including training homes for service, casual wards, Church Army homes, and Salvation Army institutions.

This makes the surprising total of ninety-two establishments. How far past is the day of the one-barrack workhouse! But the Guardians feel that much more may be accomplished. So recently as its last board meeting, it had before it a resolution inviting all the metropolitan unions to send delegates to a conference to discuss the advisability of conjointly approaching the Local Government Board, with the object of establishing a central institution in which paupers who become, under the present system, an intolerable burden upon their respective unions may be dealt with in accordance with the various Acts passed for the repression of self-imposed pauperism. At the present time, the Kensington Board of Guardians receives able-bodied men into the Mary Place Workhouse from other metropolitan parishes and unions, and it is in view of the decision of that Board to discontinue this practice, and so check progress in the work of classification by removing a useful method of dealing with refractory and worthless paupers, and such as—preferring to throw themselves upon the rates—refuse to earn their own livelihood, that this action has been taken.

ADMINISTRATIVE BLOCK, ST. PANCRAS WORKHOUSE.

One of the two workhouses is in King's Road, St. Pancras, and the other at Streatham Hill. The latter, which is called, the "St. Anne's Home," is really an old men's industrial colony. Workhouse classification includes:—(1) Infirm.—This includes the more feeble and better behaved. Greater comfort has been provided for the occupants of one of the blocks by the provision of chairs and small tables. (2) Aged.—On the male side there are two divisions in this class, one for those acting as messengers, and the other for men capable of employment in the several trades, &c. (3) Able-bodied.—On the female side, this class is subdivided—the young girls who enter the workhouse for the first time, and those of indifferent character, and "ins and outs." (4) Mental cases. (5) Married quarters. (6) Infants. The last return, which is for the week ended 8th inst., showed that the total number in the workhouse proper was 1,538, of which 600 were men, 878 women, and 56 infants under three. The building in which all those souls are lodged is a modification of an old workhouse, the foundation-stone of the alterations being laid by the then Chairman of the Board (Major-General Warren).

For a number of years before these alterations were made, the question of entirely new buildings was under consideration, but the Guardians having resolved upon rebuilding, the question of how to provide accommodation for the inmates during its reconstruction had to be considered. This was partly got over by deciding that the building should be erected in sections, and that each section should be completed and ready for occupation before the next section was commenced. Temporary accommodation elsewhere, however, had to be found for a certain number of the inmates to allow this. Premises at Streatham Hill, belonging to the Royal Society of St. Anne, being vacant on account of the children having been transferred to a new establishment at Redhill, and these being deemed suitable for their purpose, the Guardians entered into the arrangements in 1887 with the governors of the school for a tenancy, at a rental of £400 per annum. When the reconstruction and remodelling of the workhouse was taken in hand, the Guardians had reasonable grounds to believe that, when completed, ample accommodation would be provided for the needs of the parish, especially as a very large number of houses occupied by poor people were being cleared away for railway extensions. During the progress of the building, however, their expectations were doomed to disappointment. It was seen that the new workhouse would

MEN'S INFIRM WARD, ST. PANCRAS WORKHOUSE.

not meet with the requirements of the rapidly-growing parish, and that, therefore, another building must be provided elsewhere. Under these circumstances, and as the governors of the school were willing to dispose of the freehold of their property, with two and a half acres of land, for £10,000, the Guardians consented in 1894 to purchase; and expended between £2,000 and £3,000 upon its adaptation.

This is the story of how the old men's industrial colony came into existence. Considering that the place is certified for 454 inmates—who are aged men in ordinary health—it must be acknowledged that the Guardians made a splendid bargain on behalf of the parish.

The place is bright in appearance, and gives evidence of that "gentle treatment" to which reference was just now made. It is divided into two portions. Division I. consists of two day-rooms and seven dormitories, occupied by the more infirm, and, as far as possible, the best behaved of the men. Similar accommodation is provided in Division II., occupied by the men more capable of employment. A small ward of seventeen beds is set apart for the treatment of sick cases; but, as far as necessary, these are sent away for treatment at the infirmaries, to meet the requirements of the Local Government Board.

The men follow various trades. There are carpenters, painters, bricklayers, fitters, blacksmiths, tinsmiths, and gasfitters, and much new work, repairs, and alterations are done. These are under the charge of a works' attendant. No paid mechanic is employed. In the tailors' shop, the men's new clothing (outer garments) are cut out and fitted ready for making. About six men, who are taught sewing, are employed on repairs. Three men are regularly employed in the shoemaker's shop where all repairs are executed. In brush-making, as many as eight men are employed. A little more than a year ago, a new brush-making shop was built and fitted up, and the several institutions of the Guardians are kept supplied with scrubbing and laundry-brushes. There is a bookbinding shop: but little work seems here to be done. It may be mentioned that an excellent supply of books, monthly magazines, and newspapers are constantly sent by local residents, and are very gratefully received for the use of the inmates. Employment in wood-chopping is found for about sixty old men throughout the year. No question arises of interference with any wood-chopping business in the locality, and a ready sale has been found for the wood within a radius of half a mile of the home.

A laundry provides daily employment for about forty-five men. An average of 5,000 articles pass through weekly. The whole of the repairs to the underclothing and house linen are done in the laundry. Besides the tailors' shop, there is a needle-room where all new undergarments and household linen are made up by the men, seven being regularly employed, and two men are employed on the work of stocking-knitting, who make sufficient for the re-

THE CHAIRMAN OF THE BOARD
(Mr. Joseph Thornley, J.P., M.A.B.)

quirements of the home. Upwards of 120 men are daily employed in the dining-hall, day-room, and dormitories, in scrubbing, bed-making, dusting, and window-cleaning, and also as messengers and officers' servants, and in gardening, yard sweeping, etc. Twelve inmate assistants are regularly employed in the kitchen.

A glance at the work of this unique institution, suggests the question, "Why are not these men engaged outside in their regular callings?" But the official reply is that "a very small percentage of the men are physically able to maintain themselves, and a large percentage would be quite incapable of taking care of themselves outside the home." We are living in changed industrial conditions, and when a man's powers are declining, he is no longer allowed to take a diminished salary.

In the two infirmaries, one of which is called the "North," and the other the "South," there were, according to the return for the week ended 8th inst., 873 inmates. Though it is impossible within the limits of our space to make more than passing reference to these institutions, the special open-air treatment of phthisis should be mentioned. This work is carried out with very considerable success, and a number of men and women have been sufficiently benefited to enable them to leave the infirmary and resume work. The improvement may not, of course, be permanent; but that is no fault of the treatment, but rather the conditions of life to which these patients return. Unfortunately, many of the cases are in too advanced a stage of the disease to reap the greatest benefit. Most sufferers are able to work, and do so in the early stages of the disease, when treatment by the open-air method would be most beneficial. The patients also leave with the disease arrested and quiescent, and in this way it is to be feared, the disease often returns.

The North Infirmary, situate on Dartmouth Park Hill, is built on land purchased by the Guardians in 1867 for £4,200, with the object of relieving the pressure on the workhouse by providing accommodation for the sick poor in a separate establishment. Adjoining what is known as Waterlow Park, with an area of three and a half acres, and situate on the top of the hill, it was an ideal spot for the purpose, the views being extensive and beautiful. From time to time, various additions have been made to the structure, and important alterations have been effected. The establishment includes an up-to-date nurses' home, and probationers are trained, and obtain certificates qualifying them for first-class positions as nurses in the infirmary and elsewhere. The South, or Cook's Terrace Infirmary, opened in 1885, is adjacent to the workhouse in Pancras Road. It is fully equipped as a nursing school, with a well-organised staff.

The provision of receiving homes for children, to avoid them having to be admitted into the workhouse, with its unsuitable environment, has now become a recognised branch of Poor Law administration which has arisen out of an enlightened view of what has become necessary. "St. Margaret's" has accommodation for sixty children, viz., forty girls and infants, and twenty boys, with an administrative block to suit the requirements of eighty children, so as to allow for extensions. The home was formally opened in the early part of last year. The Guardians think well still to keep open the schools at Leavesden opened in 1870, and accom-

Photo by THE CHILDREN'S WARD AT ST. PANCRAS WORKHOUSE. *A. B. Hughes, Norwood.*

modating 551 children. The girls receive on an average six months' training in the details of ordinary household work. No machinery is in use, and the girls are taught washing, ironing, economy in cooking, the preparation of their own meals, the value of all articles used, and thus become accustomed to the ordinary routine of work which they have to perform when sent out to service. The girls have, in addition, their needlework, knitting and crochet classes, with occasional readings, and every effort is made to give a home-like and cheerful tone to the whole school. The boys are taught useful trades, such as carpentry, upholstery, engineering, tailoring, shoemaking, gardening, &c. Many lads also receive tuition in the brass band attached to the schools. In several instances, lads from these schools who entered the army and received their first instruction in this band have risen to very important positions.

St. Pancras' out-relief arrangements are well worth careful consideration. For the purposes of out-relief, the parish is divided into north and south divisions, each having a central relief station and dispensary. Casual wards are situated at Holmes Road, Kentish Town, N.W. A relieving-officer and a medical officer are appointed for each ward. The relieving-officers in two of the wards in the most thickly-populated districts are provided with assistants. There is a superintendent relieving-officer, and also two out-relief distributors—one in residence at each relief station. A very careful watch is kept upon this form of relief. According to the last annual report (1904), the outdoor relief is lower than it has been for any time since 1872, when the amount was £32,405, as compared with £6,081 for the year under consideration. Medical relief is put upon loan. The total number of orders issued is below that of many parishes and unions in London, and it shows a slight tendency to diminish. The existence of what are called provident dispensaries within the parish is having a salutary effect. The object is to check this insidious form of pauperism, but no applicants are refused a medical order. In those cases in which repayment can be made, no undue pressure is exercised for recovery of contribution, and the payments are accepted (if so found necessary) by easy instalments.

Mr. Joseph Thornley, J.P., M.A.B., is the newly-elected Chairman of the Board, and Mr. Alfred A. Millward, Clerk to the Guardians.

Mr. E. J. HALSEY, J.P., chairman of the Surrey County Council, died last week, at his residence in South Kensington, after an internal operation. For nearly thirty years he had devoted himself to the public business of the county; but it was in connection with the Surrey County Council, which he joined at its first inauguration, that he did his best work. In appreciation of his public services in the county, the Council recently had his portrait painted, to be hung in the County Hall, and presented a replica to his wife.

POOR LAW NOTES.

Old Age Pensions Bill.

THE full text of Mr. Channing's Bill to provide pensions for persons over sixty-five years of age is now published. If it becomes law every person of the age of sixty-five years and upwards shall, subject to its provisions, be entitled to a pension of £13 a year, to be paid him in instalments of five shillings a week. No such person shall be entitled to a pension under this Act unless—"(1), He is a British subject; (2), he is residing in the United Kingdom on the dates when he claims, and when he establishes his claim to a pension, and has been residing therein con-

THE CLERK TO THE ST. PANCRAS GUARDIANS
(Mr. Alfred A. Millward).

tinuously for not less than twenty years immediately preceding the date when he makes his claim; (3), he has not, within five years of claiming a pension, been guilty of such misconduct as would, if committed after the claim is established, cause the pension to be forfeited. Provided that continuous residence in the United Kingdom shall not be deemed to have been interrupted by occasional absence therefrom, unless the total period of such absence exceeds three years, and unless such absence shall have occurred during the five years immediately preceding the date at which the claim is made; nor in the case of a seaman or other person serving on board a vessel trading to and from the United Kingdom, if he proves that during such absence his family or place of residence was in the United Kingdom."

❦ ❦ ❦

An Almost Universal Pension.

OF course the claims are to be made according to certain procedure laid down in the Bill, but every facility for its acquirement is offered. A man may go straight from prison, providing he has served a shorter term than twelve months, and put in a valid claim for a pension. The pension is to be payable at a money order office, to be named in a pension certificate book, in instalments on one of two specified days in each week, and upon the personal application of the pensioner, who shall produce the pension certificate book on the occasion of each payment. If the Registrar to whom application is to be made is satisfied by the personal statement of the pensioner, supported, if required, by a certificate from the medical officer, or other "sufficient evidence," that the personal attendance of the pensioner is impossible, or likely to involve serious risk to his health, he will be allowed to authorise any one person, being the wife, husband, son, daughter, or other "suitable person of full age," and named for the purpose by the pensioner, to apply personally for the payment of the pension. A pension under the Act shall be inalienable whether by way of assignment, charge, execution, bankruptcy, or otherwise, and any agreement to assign, charge, anticipate, or otherwise deal with a pension shall be null and void.

❦ ❦ ❦

A Means of Punishment.

THE pension, or rather its temporary withdrawal can be made a means of punishment for minor offences, much in the same way as a school-boy is punished by the stoppage of his weekly pocket-money. It is provided in the Bill that if a pensioner in convicted of drunkenness or of any offence punishable by imprisonment of not less than one month with hard labour, then, in addition to any other penalty or punishment imposed, the court may, by order, direct that the pension instalments due to such pensioner shall not be paid to him for any period not exceeding two months, or may direct that the instalments for such period shall be paid to or applied on behalf of any dependents of the pensioner.

❦ ❦ ❦

Where the Money Comes From.

IT is important to consider the proposed sources of the money for these pensions. No estimate is given in the Bill of the amount likely to be required for this almost universal old age pension scheme, but it is provided that the pensions shall be paid as regards two-thirds of the total amount in any year out of the Consolidated Fund of the United Kingdom, and as regards one-third out of the Exchequer Contribution Account of each county,

HEATING OF BUILDINGS & HOT WATER SUPPLY

FROM LIVE OR EXHAUST STEAM.

The Latest and Best Appliance is

ROW'S PATENT CALORIFIER

Combined with AUTOMATIC STEAM CONTROL (Royles' Patent)

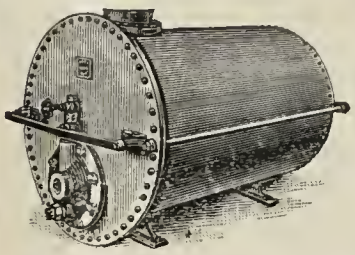
Adopted by the Metropolitan Asylums Board, London County Council, Manchester, Liverpool, Glasgow, Edinburgh Corporations, and others, for Bath Supply.

COPIOUS SUPPLY, UNIFORM TEMPERATURE.

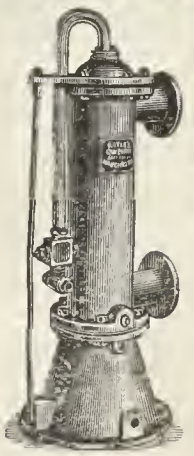
ROYLES LIMITED, IRLAM, near Manchester.

ALSO MANUFACTURERS OF

Feed Water Heaters, Condensers, Evaporators, Steam and Gas Kettles, Syphonia Steam Traps, Reducing Valves, Oil Separators, Exhaust Heads, Boiler Mountings, &c., &c. Price and full particulars on application.



Storage Calorifier for Baths.



Vertical Calorifier for Hot Water Circulaton.

which account shall be from time to time supplemented as may be necessary from the Local Taxation Fund. On the Local Government Board are to be placed the duties of making rules for the carrying out of the Act by the registrars, superintendent registrars, postmasters, and other officials concerned, prescribing the forms and terms of claims, &c. This interesting Bill has the support of the following Members of Parliament:—Sir Albert Rollit, Mr. John Burns, Mr. Burt, Sir Walter Foster, Mr. John Wilson (Durham), and Mr. Keir Hardie.

* * *

Signs of the Times.

A GUARDIAN saw a child's pinafore being blown up by the wind. He was, he told the Scarborough Board of Guardians at its last meeting, fully seventeen yards away, but could plainly see distinguishing marks which told that the child belonged to the union. The Guardian (Mr. G. F. Stubbs) is now agitating the question of a change in the marking of the workhouse children's clothing attending elementary schools in the town, and he has received a promise from the Chairman of the Board that the matter shall be investigated. This little incident indicates, as a straw the wind, the change that is coming over the attitude of boards of guardians in the treatment of their children. Not from sentimental considerations, but with an eye to the uplifting of future citizens, and perhaps a feeling for the sacredness of child-life, much is rightly being done to remove the pauper taint from these lowly-born little ones. Some boards of guardians have erased the name "workhouse" from the birth certificate of the child, already sufficiently handicapped by its birth as a pauper. But while, to the credit of the guardians concerned, these traces of workhouse taint are being removed, two-fifths of the children under the control of country guardians, and one-fifth under London guardians, are retained in workhouses and infirmaries.

Children and Out-Relief.

THIS increasing care for the real welfare of the child is further illustrated by the recent attitude of the Stockport Board of Guardians in regard to out-relief. The guardians have adopted a committee's recommendation by which the Board agrees that parents applying for relief shall not be permitted to take their children with them, nor will they in future be allowed, except in cases of sickness, to send their children to the workhouse for loaves or other relief in kind which the guardians have granted them. Reflection shows that it is little less injurious to familiarise children with the workhouse than with the public-house, and the law has recently stepped in to prevent the latter. Children should not be allowed to grow up to regard the workhouse as their *alma mater*. Moreover, in many cases children are stripped of shoes and stockings before going to the workhouse, in order to excite compassion. Other boards, it is to be trusted, will follow the example of Scarborough and put an end to this system of child demoralisation.

THE NATIONAL ELECTRIC CONSTRUCTION Co., Ltd.,

ELECTRIC LIGHT, POWER & TRACTION ENGINEERS.

CONTRACTORS TO H.M. WAR OFFICE, OFFICE OF WORKS, GENERAL POST OFFICE, &c.

Head Office: 34, VICTORIA ST., WESTMINSTER, LONDON, S.W.

Telegraph Address: "OVERHAULED, LONDON." Telephone: No. 5134 GERRARD.

Complete Town Lighting Schemes carried out for :—

BO'NESS, N.B. MUSSELBURGH, N.B. (Tramways and Lighting). CARNARVON. HOLYHEAD. KILDARE (IRELAND).

Agreements Completed with the following Local Authorities :—

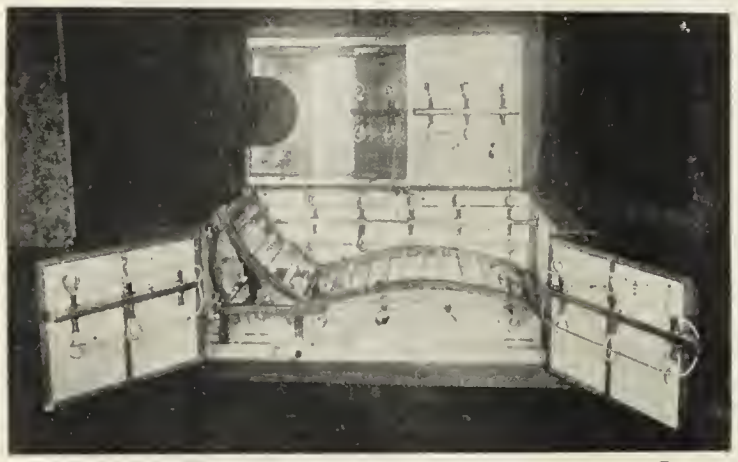
BASINGSTOKE, ORMSKIRK, PAIGNTON, WISBECH.

The "SUNBEAM"

ELECTRIC LIGHT BATHS

FOR THE TREATMENT OF

GOUT, RHEUMATISM, SCIATICA, LUMBAGO, &c.



The "Sunbeam" Cabinet Bath has been specially designed for home use, and its construction is so simple that no attendant is needed, wherefore it can be recommended as the healthiest and simplest form of Domestic Turkish Bath.

The "Sunbeam" Electric Light Baths are very economical in use, owing to their low consumption of current. Taking 15 minutes as the average duration of a bath, the cost at 3d. per unit will be 1½d.

Semi-Reclining Bath, with 50 Incandescent Lamps	£36	0	0
Cabinet Bath	from £15	0	0
Portable Baths for local application	from £3	10	0
Electro-Vibrator for Massage	from £8	0	0

All Baths are made in London by the Manufacturer and Patentee,

C. M. HOLMQUIST,

From whom full particulars can be obtained and the Baths seen in operation at

57, EDGWARE ROAD, LONDON, W.

DIALITE

THE

STANDARD

CABLE

FOR ALL

PURPOSES.

THE ST. HELENS CABLE CO., Ltd.,
WARRINGTON.

ELECTRICITY SUPPLY.

Facts in Regard to the Leicester Corporation Half-Yearly Accounts. Perspicacity of Board of Trade in Dealing with Electricity Accounts. In the Allocation of Costs, Are Deductions for Street Lighting, &c., Permissible? Plain Talk to Electrical Engineers of Municipal Works.

THE Leicester Corporation electricity accounts are made up half-yearly, and in consequence there is no form which exactly fills the model of the Board of Trade. On the other hand the figures being given in half-yearly instalments enable deductions to be drawn which otherwise would not be possible. For the twelve-monthly period ending 30th December last:—

The revenue derived from sales of current &c., amounted to	£31,518
And the working expenditure to	11,626
Leaving a gross profit of	£19,892
Out of this sum the following requirements were met:—	
Interest on mortgage debt	£6,610
Interest paid to bank	314
Interest on deposits	5
Sinking fund	6,442
Total of capital and special charges.	£13,371
Surplus for year	£6,521

In the revenue bad debts are included, and also a sum of £7 received as "interest on mains." In the following summaries bad debts are deducted.

❦ ❦ ❦

A Satisfactory Surplus.

A SURPLUS from a purely private supply station (there is no public lighting or traction output shown in the accounts) of £6,521 is exceptionally good and it must be remembered also that the twin interests, gas and electricity, are more closely related in Leicester than in many other places. This large surplus has not been obtained by charging high prices, as the average of current only is just over 3¾d. per unit. These results will be taken by the advocates of high tension alternating supply as in their favour; by those who hold that street lighting does not usually pay, as proving their argument; and by partisans of a flat rate, as showing that it is not incompatible with large and sustained profits.

The receipts were obtained from the following sources:—

Leicester, 1904.	Units.	Yielding	Per unit.
Private consumers took ...	1,895,377	£29,892 =	3.785d.
Meter rentals		1,239 =	.157d.
Profit on wiring department		328 =	.041d.
Interest on mains received		8 =	.001d.
Total receipts	1,895,377	£31,467 =	3.984d.

The comparison of the two half years shows:—

1904.	Units at 4d.	Receipts.
January to June	789,297 ...	£13,155
July to December	908,446 ...	15,141
Total for year	1,697,743 ...	£28,296

The totals are gross, bad debts amounting to £28 in the June, and £23 in the December quarter not being deducted.

❦ ❦ ❦

Revenue Account.

THE revenue was taken up and appropriated thus:—

	Amount.	Per unit.
Works' costs	£7,022 =	.889d.
Rates taxes, and management.	4,553 =	.577d.
Total cost	£11,575 =	1.466d.
Interest charges	6,929 =	.877d. } 1.693d.
Sinking fund charges	6,442 =	.816d. }
Total actual cost of units sold..	£24,946 =	3.159d.
Surplus for year...	6,521 =	.825d.
Total receipts	£31,467 =	3.984d.

It will be noticed that the capital charges are quite up to the average, and that the surplus is approximately equal to the sinking fund or interest charge per unit, showing an unusually high proportion which is only attained by the low total costs. The effect of large output is very clearly demonstrated, and it is probable that in reality with large generating sets, this will tell in favour of low costs to the same extent as an improved load-factor does where numerous small generators are installed.

❦ ❦ ❦

The Model Form for Accounts.

THE Board of Trade form for electricity accounts is a marvel of foresight, considering the date at which it was prepared and the changes which have since taken place. Many as these latter have been, the form remains unaltered, and if used without alteration, in all cases comparison between the results of different undertakings would be an easier matter than it at present is. And the modifications introduced are not always a success. They too frequently complicate without explaining the position of affairs, while they expose the authorities responsible to criticism which is obviously sought. It is open to the accountant who uses the model form to reply to any critic that the Board of Trade, and not his individual opinion, is responsible for the mode of setting out the returns. If these are not in accordance with the model form a good reason must be shown for the change, or it may be attacked as being simply an error or mistaken judgment. One provincial town has been accused of want of candour in placing the balance from the net revenue account on the credit side of the balance-sheet, whereas the Board of Trade shows it on the debit (or liabilities) side, as is the general custom with commercial concerns. Again, the model form gives the receipts on the "Cr." side of the revenue (or, as it is usually termed in commerce, the "profit and loss account") account, but some local authorities do not apparently approve of this arrangement, and boldly transpose them without drawing attention to the fact. We cannot think such actions well advised, as they expose weak places to the outsider, to whom the published accounts are the only sources of information available. The tables so often substituted in reports are, no doubt, useful, but as they contain figures which do not fit in with the statutory returns, they cannot be accepted in substitution for these.

Units at 2d.	Receipts.	Total units.	Total receipts.
... 94,884 ...	£791 ...	884,181 ...	£13,946
... 102,750 ...	856 ...	1,011,196 ...	15,997
... 197,634 ...	£1,647 ...	1,895,377 ...	£29,943

Points for Electricity Committees.

There are, again, so many different views as to the allocation of costs that it is not surprising that the attempts to analyse and compare returns should occasionally meet with disapproval on the part of engineers whose figures are considered by the compilers unduly high. One of the most debatable points is whether deductions are permissible. Many competent summarisers of the annual accounts deduct the cost of street lighting from the revenue derived from this source before setting down the amount averaged per unit. Others, also, deduct the sales of lamps, etc., from the repairs of mains, etc., before dividing by the units sold. The argument used is that the costs, being incidental to one department of the business only, should not be allocated to the whole. If this were carried to its logical conclusion, and the figures for "standing-by" and "production" were given, the contention might be upheld. So long, however, as the night load is a small one, and greatly benefits by the addition of street lamps burning throughout the hours of darkness, it is difficult to see how a trained accountant could support such a view, and unless these analyses would be accepted by such a skilled worker in statistics, they may be put aside as of little value. Rightly or wrongly, there is a model form, and if all undertakings correctly fill up their results in this way the figures at least are comparable even if the conditions under which they are obtained differ. We strongly advise our readers who occupy the positions of members of electricity committees to do two things. Firstly, to see that all returns they have presented to them are left in their original state according to the statutory form (which ensures their arithmetical correctness), and, secondly, to pay careful attention to the local conditions, geographical position, load-factor, system of supply, class of demand, and output before drawing comparisons between one station and another.

❦ ❦ ❦

Opportune Ideas.

THESE and other ideas may not be new, but they most certainly are opportune, for year by year, as accounts come to hand in the spring, they are prominently brought to the notice of the student of annual returns. Perhaps more attention would be paid to them did not the electrical engineer holding a responsible position in a municipal works too often under-rate the intelligence of the average councillor. Speaking from an inside knowledge of a very large circle of acquaintances in such positions, it is one of the most surprising things to find how few engineers give the members of their committees any credit for the possession of ordinary business common sense. They seemingly forget that committeemen are generally speaking, engaged in some kind of business, and have a much closer acquaintance with forms of accounts and balance-sheets than electrical engineers. The "production engineer," or engineer with a highly developed commercial faculty, will not make this mistake, but, so far, the rush for rapid promotion has tended to place purely scientific and technically-trained men into positions which involve no little ability of a purely commercial character, in addition to a thorough grasp of applied engineering. The consequence is, that some astute member of a committee sees something that seems to him loose business or commercially unsound, and he seizes it as a pretext for a general criticism, levelled not only at the engineer, but often at his department as a whole. And he is justified, for the sooner the municipal officer controlling an electrical department realises that he is merely the head seller of a commodity (however technical the details of its production and distribution may be), and that, therefore, the records of sales must be as carefully and accurately kept as they are for any other kind of business, the better will be the case for the advocates of municipal trading. Already the case is good, but it will be still better as the average engineer rises to the level of the leading men in his calling, many of whom have shown conspicuous ability in this direction.

L.C.C. BAND REHEARSAL.

THE public rehearsal of the London County Council band, which will perform during the summer in the parks and open spaces of London, will take place, under the direction of Mr. C. Armbruster, the Council's musical adviser, on Wednesday, 10th May, at 3 p.m., at Queen's Hall, Regent Street, W.

Tickets of admission may be obtained free of cost on application before 3rd May, to the chief officer of the Parks Department, 11, Regent Street, S.W.

The band consists of 108 members, and will perform during the season in three sections, each complete in itself—two sections as military bands and one as a string band. The latter is a new feature.

THE BRITANNIC ASSURANCE COMPANY, LIMITED.

At the recently-held annual meeting of the above company, an exceedingly gratifying report was presented and adopted. Mr. F. T. Jefferson (Chairman of the company), who presided, began an excellent speech by congratulating the members upon the prosperous state of the finances and the brilliant prospects which the future seems to promise. The new chief offices at Broad Street Corner, Birmingham (of which we gave an illustration and description in our last issue) are so capacious and conveniently arranged as to be capable of greatly facilitating the extending business that is being done; and the indoor staff (320 persons), as well as the 5,000 agents and superintendents in various parts of the kingdom, will, with the splendid 1904 report to work upon, doubtless feel optimistic in regard to the business of assurance during 1905.

From the report, we learn that the balance of receipts over expenditure exhibits the handsome surplus of £208,464 on the year's accounts. The premium income shows an increase of £50,000, whilst the income from all sources shows a net increase of £57,000. The claims paid during the year amount to £411,159, and include the sum of £87,901 paid under maturing endowment and endowment assurance policies.

The consulting actuary, Mr. T. G. Ackland, F.I.A., reports, as the result of his periodical investigations of the financial position of the company, that there is confident reason to anticipate a substantial surplus at the end of the present year, as available for distribution amongst the participating policy holders and the shareholders. The directors have determined to allocate a liberal interim bonus to claims emerging by death or maturity under immediate profit tables during the present year.

The Chairman alluded to the gallant and pathetic efforts of the people to maintain their policy contracts during times of trade depression. His company had received from numerous towns throughout the kingdom evidence of how severe the depression had been during the past year. So great was this depression in one town that the Mayor felt impelled to appeal to the company to extend the period of grace within which the payment of premiums could be made to avoid the lapsing of policies. He need hardly say that a deaf ear was not turned to that suggestion.

Notwithstanding the bad state of trade, however, the premium income of the company has increased by no less a sum than £50,000, which is more than the total premium income in the year 1880, and brings the total premium income up to £932,586. This is considerably more than twice what the total was no longer back than the year 1896, and, as a matter of fact, the premium income has practically trebled since 1893.

There are indications of more money being required for local municipal purposes, and the Chairman pointed out that many of the loans authorised by his company in the last two years have been loans to municipal corporations for fixed periods, varying from twenty to thirty years. No less a proportion than 93.8 per cent. of the assets are invested and bearing interest; or, in other words, only 6 per cent. of the assets are non-productive. The total income is to-day more than £1,000,000 per annum; but this rapidly-increasing prosperity has not caused the directors to forget to make provision for a possible "rainy day."

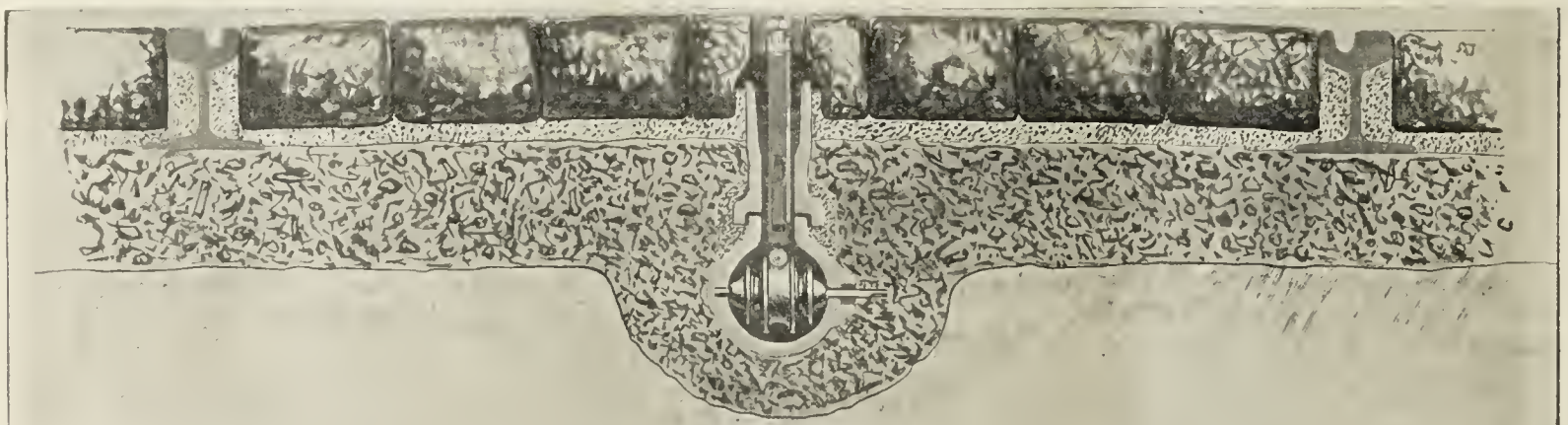
It is rightly claimed for the Britannic Assurance Company that it is a great national thrift institution; for out of its funds no less a sum than £87,000 was paid to living assurants during last year only; while a reference to the report shows that the total amount paid by the company to its assurants has been £4,339,660. Moreover, it has returned to policy-holders unable to continue their contracts the handsome sum of £203,000.

As regards the company's investments, £92,000 has gone in increasing mortgages on freehold properties within the United Kingdom; £38,000 in acquiring freehold and leasehold properties; £21,000 on railway and other shares; £26,000 on corporation stock; £21,000 loans on the company's policies, and £12,000 on other companies' shares.

The operations of the company being now not only national, but even world-wide, it is affected by events which happen in various parts of the universe. Events as far apart as the war in the East or a colliery explosion at home may affect the company's reserve fund. Last year, the lamentable explosion at Clydach Vale Colliery cost it many hundred pounds. The directors, however, in accordance with their usual custom, issued instructions to the agents and superintendents to pay promptly on the identification of the bodies rather than wait for the usual formalities. This humanitarian way of doing business is really also the most tactful that could have been adopted, as it increases the confidence the great working-class portion of the community feels in dealing with a company that will not permit itself to be entangled in red tape.

The benefits and advantages of life assurance were never better understood by the great masses of the people, and never better appreciated than to-day, and the Chairman of the Britannic Assurance Company has good ground for the statement with which he concluded his speech in moving the adoption of the report, namely, that vast as has been the achievements of the company in the past, the future contains elements of greater prosperity than anything that has gone before. The business of life assurance has hardly got beyond its initial stages, and now that it has been properly presented to the public, considerable developments may be expected.

J.G.WHITE & COMPANY, LIMITED.
ELECTRICAL, MECHANICAL & CIVIL ENGINEERS
GENERAL CONTRACTORS
22A. COLLEGE HILL, CANNON ST LONDON. E.C.
TELEGRAMS "WHITTERICK, LONDON." TELEPHONE 6044 & 6045 BANK



CROSS SECTION.

The "G.B." SURFACE CONTACT SYSTEM. The Simplest, Best, and Cheapest System.
HAS BEEN ADOPTED BY THE LINCOLN CORPORATION For Particulars apply to—
The "G.B." SURFACE CONTACT COMPANY, Hamilton House, Bishopsgate St. Without, E.C.
Telegrams: "OPALITE, LONDON." Telephone 2868 LONDON WALL

TRAMWAY TOPICS.

A NIGHT or two ago, after the trams had stopped running on the Plymouth, Stonehouse, and Devonport Tramway Company's service, a very important experiment was conducted in order to test the efficacy of a new trolley-head which has been invented by Messrs. J. T. Cherry and E. H. Clive, local gentlemen. Hitherto the trolley-heads in use on almost all the lines have given anything but satisfaction. They are constantly getting out of order, and much time is lost, to say nothing of the vexatious labour experienced in fitting the trolley-heads to the wires once they are detached. This is especially the case on wet and stormy nights, when cars are detained an unreasonable time through the inability of the conductor to get the wheel of the trolley-head adjusted.

Details.

THE new trolley-head is so designed as to effect an adjustment almost immediately, and without the slightest difficulty, and, in addition to this, the inventors claim that it is cheaper and more durable than the trolley-heads now in use. It certainly is a very ingenious contrivance, the result of several years' careful thought and experiments. The invention consists of a revolving head with slots at opposite ends for the purpose of allowing two vertical links to be brought into play. These are pivoted to rocking levers, which are, in turn, pivoted to the floor of the fork. These rocking levers are operated by a rod, or shaft, thrust through the socket, which, when pulled by a rope, or any other device, immediately forces the uprights against the wire-finders, raising the latter into a V form. While in this position the overhead wire easily falls into position on the wheel, and at once the wire-finders fall back into their places.

"Wonderfully Simple."

THE thing is wonderfully simple, and undoubtedly effective. Conductors of tramcars will find them a great boon wherever they are adopted, and it is more than likely they will come into general use, seeing that the invention has received the approval of no less a person than Mr. H. C. Braun, consulting engineer and arbitrator to the Guildhall Chamber of Commerce, London. Mr. Braun says "the model works exceedingly well, and can be considered a great success." The Plymouth test was a severe one, but the device worked admirably on all occasions, and at the conclusion of the experiment those in authority expressed themselves well pleased with the result. Mr. Grahame Pearce, engineer to the company drove the experimental car, and tests were made near the New Palace Theatre, Derry's Clock, and at several other points on the route, and whilst the trolley-head was adjusted almost immediately in some cases, it was never more than five seconds. Mr. Pearce expressed himself well satisfied with the new device. The invention is a development of Messrs. Cherry and Clive's master patent improved trolley-head, No. 22,675, patented in October, 1902-3, and further entered August, 1904, No. 18,464, and again 13th February, 1905. These gentlemen have also made their invention secure in the United States of America and the Dominion of Canada.

Rochdale Results.

THE result of the working of the Rochdale Corporation tramways for the twelve months ended 31st March, is a loss of £8,358. On the revenue account the income for the year has amounted to £14,975 3s. 7d., and the working expenses total £12,770. Thus, on the working account alone there is a profit of £2,205 3s. 7d. Against this, however, there has to be charged for interest on capital £8,868, sinking fund £1,744, and other items which bring the total to £10,853, which, after deducting the profit on working accounts, leaves the deficiency of £8,358. Only three of the minor sections have been working the whole of the year, and some of the more important sections have only been working three and six months. It is expected that when the whole of the sections are working, notwithstanding the heavy capital charges, the Rochdale trams will at least pay their way, and possibly yield a profit.

Blackpool Estimates.

THE Blackpool Corporation Electrical Engineer, Mr. C. Furness, estimates that out of profits on the electric lighting and tramways departments the rates of the town will be relieved to the extent of £5,000, which has been made possible through economy in coal, equal to nearly £3,000, together with an increased output. The tramways of the Corporation have increased their receipts by £6,468, the number of passengers being 890,161, and miles run 103,352.

The Heywood Deadlock.

IT is asserted that the deadlock in regard to the running of the electric trams between Heywood, Bury, and Rochdale has practically been removed, and that a scheme agreeable to all parties, but yet needing the ratification of the three Town Councils concerned, has been agreed upon. The deadlock has existed for some months, and much public inconvenience has been caused. The basis of the settlement is that the cost of working shall be at the rate of 4½d. per car mile, Heywood to provide the track, equipment, and current, and the other Corporations the cars and the staff.

Sunderland's New Offices.

LAST week the new tramway offices and headquarters at Sunderland were opened. The new premises are situated at the Wheat Sheaf, Monkwearmouth, and will displace the present temporary premises in Fawcett Street, which are really an eyesore to the town and district for the handsome thoroughfare in which they stand. The new offices are at the northern end of the car sheds, and are a decided acquisition to the architectural feature of the north side of the borough. The structure is in the domestic Gothic style, and at the corner there is a tower seventy feet high, in the dome of which there is a clock. The front of the building is of Pelaw facing bricks, with dressings of Dunhouse stone. The entrances are large and spacious, and are lined with tile faience. There is a large ticket office where the various tram tickets and despatches for the conductors will be kept, and, adjoining this is the cashier's office and strong-room. The manager's office, and assistant manager's room, and general offices are on the first floor, and are commodious and well lighted. The offices, which are fitted with electric lighting and heating apparatus, are equipped with inter-communication telephones so that the manager, Mr. A. R. Dyson, will be in touch with the whole of his department. The second floor is principally devoted to a large recreation hall or meeting room, and there is also a good sized reading room. These features will be greatly appreciated by the conductors and drivers, who now have to wait in the open for their cars, when beginning or changing a shift. In the second storey committee rooms are provided, and on the ground floor there are two waiting rooms for the inspectors and men, while stabling is provided at the rear of the premises. The building has been designed and carried out at a cost of about £6,000, by Mr. F. E. Coates, the contractor being Mr. S. Warburton, Manchester.

The Opening Ceremony.

THE opening ceremony was performed by Councillor Summerbell, chairman of the Tramways Committee. There was a large attendance of members of the Corporation and officials present. Councillor Summerbell said it gave him much pleasure to declare open the new offices, which were a great improvement to that part of the town. The building cost about £6,000, and it was intended to pay back the money out of the tramway revenue by six yearly instalments of £1,000. By this means, it was hoped they would be able to hand over the buildings to the ratepayers without their having been called upon to expend a single penny on their construction. When this was accomplished, the buildings would produce a revenue of £95 a year towards the rates, being the rents for the shops in the buildings, and in addition there would be the saving of £200 a year, which was the rent of the premises just vacated by the Corporation.

DICK, KERR & Co., LIMITED.

Manufacturers of all kinds of Electrical Machinery.

Contractors for Municipal Lighting and Tramway Schemes.

HEAD OFFICE: Abchurch Yard, Cannon Street, London, E.C.

WORKS: Preston, Lancs., and Kilmarnock, N.B.

"MUNICIPAL JOURNAL" ANALYSES OF ELECTRIC TRAMWAY ACCOUNTS.

1903-4.

	Population.	Date tramways started.	Length of street route.	Gauge.	Capital outlay.	Number of passengers carried.	Number of car miles run.	Total receipts.	Working expenses.	Percentage of expenses to rec'pts	Nett receipts.	Percentage of nett receipts to capital.	Interest charges and lease rentals.	Repayment charges.	Surplus (+) or loss (−).	Provision for depreciation and reserve.	Contribution to rate fund.	Traffic receipts per car mile.	Expenses per car mile.	Average fare per passenger.	Electricity supplied by	Number of B.O.T. units used.	Price paid or cost of electricity per unit.
			Miles.	Ft. In.	£			£	£	%	£	Per cent.	£	£	£	£		d.	d.	d.			d.
Aberdeen ..	165,000	Aug., 1898	14·14	4 8½	314,407	15,538,167	1,379,723	64,071	37,054	58	27,017	8·59	10,389	2,397	+14,231	14,231	nil	11·00	6·45	·98	Elec. Dpt.	1,525.708	1·52
Ayr	33,000	Sept., 1901	5 69	4 8½	71,775	3.316,380	353,945	14,334	7,622	53	6,712	9·35	2,303	891	+3,518	3.518	nil	9·46	5·17	1 01	Elec. Dpt.	324,157	1·30
Birkenhead ...	113,300	Feb., 1901	13·52	4 8½	345,960	11,327,932	1,349,701	55,946	34,748	62	21,198	6·13	10,538	8,777	+1,883	1,883	nil	9·72	6·18	1·16	Own wrks	2,128,607	·72
Blackpool ...	50,000	1885	9·62	4 8½	267,178	6,357,218	735,103	42,061	27,873	66	14,188	5·31	8,422	5,713	+53	nil	nil	13·50	9·10	1·56	Elec. Dpt.	1,008,529	1·83
Blackburn ...	188,000	1887	14·13	4 0	320,203	7,742.692	951,484	44,682	29.369	66	15,313	4·78	8,818	11,633	—5,138	nil	nil	10·94	7·41	1·34	Elec. Dpt.	1,785,712	1·50
Bolton	171,100	Jan., 1900	25·13	4 8½	504,509	19.895,496	2,188,030	95,096	54,716	58	40,380	8·00	12,233	13,654	+14,493	12.233	2,260	10·33	6·00	1·14	Elec. Dpt.	3,098,292	1·25
Bournemouth ...	60.000	July. 1902	12·25	3 6	257,812	9,363.985	1,022,164	54,397	30,276	56	24.121	9·36	9,051	7,336	+7,734	nil	nil	12·31	7·11	1·34	Own wrks	1,601,039	·86
Bradford	324,000	July, 1898	48·52	4 0	818,205	39,639,44	4,546,942	197,438	135,869	69	61,569	7·52	*48,169	—	+13.400	2,917	nil	10·20	7·17	1·17	Elec. Dpt.	7.731,563	1 0
Brighton	123,500	Nov.. 1901	9·95	3 6	242,811	10,999,046	1,151,477	46,264	40,356	87	5,908	2·43	7,199	3,488	—4,779	nil	nil	9·60	8·41	1·00	Elec. Dpt.	1,774,988	1·50
Burnley	154,000	Dec., 1901	10·77	4 0	176,468	7,514,063	896,397	43,738	30,644	70	13,094	7·42	6,132	3,426	+3,536	3,536	nil	11·58	8·20	1·38	Elec. Dpt. & Nelson Crp.	1,461,700	1·79
Burton-on-Trent.	52.000	Aug.. 1903	5·74	3 6	82,500	2,566,134	282.378	11,943	8,919	75	3.024	3·67	1,533	773	+718	718	nil	9·84	7·58	1·08	Elec. Dpt.	362,827	1·46
Cardiff	168,000	May, 1902	14 63	4 8½	687,222	23,574,204	2.643,762	105,017	65.351	62	39,666	5·77	19,219	14,084	+6,363	403	642	9·24	5·93	1·04	Own wrks	5,896,506	·45
Chester	39.000	April, 1903	2·50	3 6	66,098	2,002,835	260,785	8,916	5,332	60	3,584	5·42	2,026	1,218	+340	nil	nil	8·17	4·91	1·06	Elec. Dpt.	239,072	1·75
Darwen	40,000	Oct.. 1900	4·36	4 0	79,272	2,236.102	253,345	12,371	8,413	68	3,958	4·99	2,411	1,982	—435	1.050	nil	10·92	7·97	1·24	Elec. Dpt.	422,583	1·71
Dover	42,000	Sept., 1897	3·00	3 6	41,850	2,871,332	280,901	11,839	8,714	74	3,125	7·47	*2,205	—	+920	nil	nil	9·63	7·45	·94	Elec. Cpy.	319,413	2·75
Dundee	163,000	July, 1900	12 65	4 8½	263,382	11,420,985	942,969	44,437	28,521	64	15,916	6 04	6,837	5,000	+4,079	2.842	nil	11·15	7·26	·92	Elec. Dpt.	1,661,721	1·49
East Ham ...	104,000	June, 1901	6·82	4 8½	135,591	12,950,269	807,002	35,301	24.262	69	11,039	8 14	5,806	3,285	+1,948	1 356	nil	10·20	7·22	·64	Elec. Dpt.	920,696	1·75
Farnworth ...	50,000	Jan., 1902	4·33	4 8½	43,696	1,532,293	242.524	7,486	4.850	65	2,636	6·03	3.241	1,175	—1,780	nil	nil	7 40	4·80	1·17	Elec. Dpt.	317,126	·50
Glasgow	1,000,000	July, 1894	70·34	4 7¾	2,107,880	188,962,610	16,291.082	724,851	356,820	49	368,031	17·46	64,376	45.553	+258,102	233,102	25 000	10·58	5·26	·91	Own wks.	15,372,609	·42
Halifax	168,000	June, 1898	33·41	3 6	342.460	16.322 059	1.387.885	68.289	50,758	74	17,531	5·12	9,957	7.081	+493	493	nil	11·76	8·78	1·00	Elec. Dpt.	2 659.920	1·62
Huddersfield ...	100.000	Feb., 1901	28	4 7¾	411,722	11,899,287	1,632,000	65,883	34 665	53	31,218	7·58	13.632	10,638	+6,948	11,687	nil	9·37	5·10	1·28	Own wks.	2,565,643	·34
Hull	248,000	July, 1899	13 60	4 8½	383,977	24.220 718	2.512,821	101,259	63.194	62	38,065	9·91	9.932	9.148	+18.985	7,485	11.500	9·61	6·04	1·00	Own wks.	3.285,621	·63
Ilford	52,000	Mar., 1903	6·50	4 8½	132,874	5,274,025	577,034	23,218	13,568	58	9,650	7·26	3,046	2,033	+4,571	4,571	nil	9 39	5·64	1·03	Elec. Dpt.	563,464	1·50
Kirkcaldy ...	34,100	Feb., 1903	5·25	3 6	78,731	2,770,936	301,779	10,189	7,623	75	2,566	3 26	2,012	471	+83	40	nil	7 90	6·06	·86	Elec. Dpt.	395,071	1·75
Lancaster ...	40.300	Jan.. 1903	3·41	4 8½	27,207	1,079,772	153,692	4,191	4,654	111	*loss* 463	—	1,245	1.125	—2.833	nil	nil	6·54	7·27	·93	Elec. Dpt.	199,600	2·00
Leeds	446 400	Feb , 1894	42·51	4 8½	1,107.977	60,739.234	6.091,437	281,418	155,598	55	125,820	11·36	27,639	27,094	+71,087	19,087	52,000	10·94	6·13	1·10	Own wks.	9.518,680	·34
Liverpool... ...	760,000	1868	57	4 8½	1,863,485	113,057,234	11,734,838	533,394	335,621	63	200,773	10·77	52,932	51,598	+96,243	64,162	32,081	10·73	6·86	1·11	Elec. Dpt. & Bootle Crp.	17,978,718	1 08
Manchester ...	750.000	June, 1901	79·49	4 8½	1,485,612	120,772,368	13,759,071	611,881	392,504	64	219,377	14·77	72,781	26,903	+119	69,693	50,000	10 52	6·85	1·20	Elec. Dpt.	16,815,764	1·49
Nelson	36,000	Feb.. 1903	2·74	4 0	30,493	1,420,759	171,132	4,655	3,563	77	1,092	3 58	781	232	+79	nil	nil	6 47	5·00	·78	Elec. Dpt.	170,611	2·00
Newc'stle-on-Tyne	257,000	Dec., 1901	23·36	4 8½	1,054,493	39,715,120	4,059,907	184,170	120,700	66	63,470	6·02	28 896	22 638	+11,936	nil	nil	10 68	7·14	1·09	Own wks.	7,757,885	·36
Newport	76.000	April. 1903	8·50	4 8½	164.219	4,473.411	635,000	23,653	15,533	66	8.120	4·95	4,360	3,360	+400	nil	nil	8·63	5·87	1·22	Elec. Dpt.	641,860	1·50
Nottingham ...	240,000	Jan., 1901	16·25	4 8½	559,838	27,876,889	2,512,000	128,202	71.259	56	56,943	10·17	15,333	15,128	+26,482	13,482	13,000	12·07	6 81	1·09	Elec. Dpt.	3.768,601	1·25
Oldham	100,000	Dec., 1900	17·93	4 8½	432,188	12,968,880	1,420,455	60,413	43.286	72	17,127	3·96	15,324	9,629	—7,826	nil	nil	10·01	7·31	1·10	Elec. Dpt.	2,177,309	1·50
Portsmouth ...	198,000	Sept.. 1901	14·50	4 7¾	634,406	18,204,426	1,828,193	92,917	43,427	47	49,490	7 80	18,343	15,119	+16.028	16,028	nil	11·46	5·70	1·15	Own wks.	2,695,605	·55
Rochdale	86,000	May, 1902	3·96	4 8½	83,386	1,156.300	194,490	6,981	6,761	97	220	·26	2,851	1,406	—4,037	nil	nil	8·42	8·34	1·42	Elec. Dpt.	393,180	1·47
Rotherham ...	58,000	Jan., 1903	8·33	4 8½	105,762	4,914,479	525.840	21.341	15.602	73	5,739	5·42	2,088	1,261	+2,390	2,407	nil	9·57	7·12	1·02	Elec. Dpt.	806,291	1·50
Salford	300,000	Oct., 1901	32·50	4 8½	511,170	36,956,405	4,726,446	198,648	139,508	70	59,140	11·57	27,529	16,171	+15,440	3,440	12,000	10·08	7 09	1·29	Elec. Dpt. &Man.Cp.	6,102,524	1·89
Sheffield	425,000	1872	32·50	4 8½	988,316	61,450,993	5,768,231	233,829	156,403	67	77,426	7·83	30,722	19,394	+27.310	33.771	8,249	9 67	6·51	·91	Own wks.	9,460,618	·48
Southampton ...	107.800	July, 1898	9·72	4 8½	198,621	9,890,952	1,144,350	53,501	36,640	68	16,861	8·49	5.935	4,720	+6,206	1,206	5,000	10 88	7·68	1·26	Elec. Dpt.	1,298.392	2·25
Southport ...	49,000	June, 1900	8·42	4 8½	118.364	3,837,208	431,019	17,646	10,986	62	6.660	5·63	3,803	3,198	—341	nil	nil	9 63	6·12	1·08	Elec. Dpt.	492,261	1·50
Stockport... ...	110,000	Aug., 1901	12·27	4 8½	140,276	3,170,854	606,476	19,074	12,914	68	6.160	4·39	4,196	1.334	+630	nil	nil	7·37	5·11	1·41	Elec. Dpt.	790,892	1·50
Sunderland ...	158.900	June.1900	10·92	4 8½	277,240	14,848.958	1,433,463	62.669	36,517	58	26,152	9·43	8,241	8,330	+9,581	5.567	4,014	10·46	6·11	1·01	Elec. Dpt.	1.562.748	1·87
Wallasey... ...	56,500	Mar., 1902	8·48	4 8½	127,949	6,564,493	757,688	35,873	24,980	70	10,893	8·51	4,064	1.618	+5,211	4.500	2,650	11·17	7·91	1·29	Elec. Dpt.	1,243,340	1·63
Warrington ...	80,000	April, 1902	6·42	4 8½	94,563	3,940,305	419,036	16,264	12,012	74	4,252	4·50	3,024	2,011	—783	nil	nil	9·15	6·88	·97	Elec. Dpt.	496,268	1·90
Wolverhampton.	94,200	Mar,, 1902	7·33	3 6	183,840	4,555,435	507,527	23,591	14,911	63	8,680	4·72	5,278	2,293	+1,109	3,475	nil	10·97	7·05	1·22	Elec. Dpt.	773,208	1·66
Yarmouth ...	35,000	June, 1902	3·59	3 6	44,149	1,611,699	222,350	7,876	5,939	75	1,937	4·39	1,570	582	−215	nil	nil	8·33	6·41	1·15	Elec. Dpt.	172,939	2·50

* Includes Repayment Charges.

EDUCATION AND THE TYPEWRITER.

The Pen versus the Writing Machine. Clearness and Speed Preferred by Present Day Employers rather than Beautiful Penmanship. The Advantages of the Typewriter in Girls' Schools. Writing Equal in Appearance to Print, though Written at Four Times the Rate of Ordinary Pen Writing, and with Less Fatigue. A Typewriter that is Popular with Teachers and Pupils Alike.

LITTLE more than a generation ago a clear, flowing handwriting was a clerkly qualification of no slight importance. Shorthand-writers were not then so numerous as they are to-day, and the typewriter had not developed into the practical writing-machine it now is. The clerk, therefore, who could write what was called a copper-plate style of caligraphy at a fairly fast rate might, by that accomplishment alone, secure a comfortable and reasonably remunerative situation. The development of the typewriter, however, and the spread of a knowledge of Pitman's shorthand, by showing the easier and more rapid way in correspondence, placed penmanship at a discount, and obliged prospective clerks to educate themselves up to the commercial requirements of the day by learning one or other, or both, of "the twin arts" of typewriting and shorthand.

A Commercial Requisite.

As most people are aware, the typewriter as we know it is an American invention, and, in respect of perfection of mechanism and ease of working, it is generally admitted that the American machines still hold the field. It is true that the first writing machine was invented so far back as 1714, but it is only during the last quarter of a century or so that the merits of the typewriter have been generally recognised by officials, heads of departments, business men, and the teaching profession. Since 1880 the growth of the typewriting industry in Great Britain has been very rapid, and has, indeed, been such as to excite the competitive attention of numerous capitalists and manufacturers, who have put machine upon machine on the market.

Brains and Fingers.

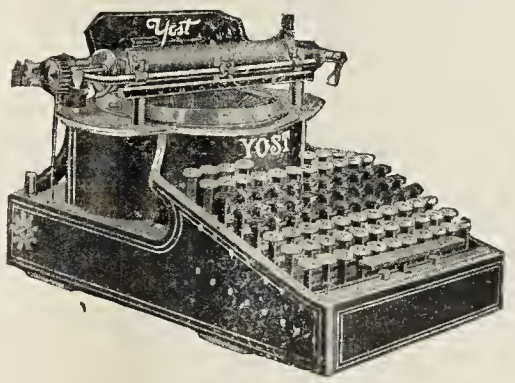
Although manufacturers catered in the first instance for the commercial rather than the teaching professions, the usefulness of the typewriter as an aid to education—especially in girls' schools—began gradually to attract attention; and it has now become a matter of too great importance to be neglected by those who are entrusted with the direction of the education of youth. There can be no doubt that the growth of the typewriter industry has given employment to a large number of women. If it is true to say that the very fastest typists are men, it is none the less true that the vast majority of expert typists are women. It is generally conceded that the typewriter is eminently adapted to manipulation by the deft and supple fingers of young women and girls. But it is a mistake to imagine that typewriting is purely manual labour. On the contrary, the demand is for educated women, girls, and youths as typists, and the manipulation of the machine is in itself in many respects an important, though as yet not sufficiently-recognised aid to education.

Best Way to Educate Girls.

In the first place, it is an aid to correct spelling. The angular and frequently illegible characters which used to be distinctive of feminine handwriting covered and concealed many a mis-spelled word; but a good typewriter turns out work as clear as print, and any weakness in regard to spelling is at once detectable, and any slip in grammar or clumsiness of composition is also more apparent to the teacher. Secondly, the ease with which the typewriter can be manipulated encourages girls to write more frequently than they would otherwise do; and by this means, and because they are induced to copy for practice from well-written letter-press, they acquire facility in writing—a characteristic in which the girl who writes ordinary longhand, and does not type, is usually conspicuously lacking. To make a machine print clear English at a high rate of speed must necessarily stimulate the mental faculties and develop a quick, decisive condition of mind likely to conduce to success and happiness; while, even if it be said that the work of the typist consists largely of copying, an accurate copyist can hardly fail in time to assimilate some portion of the power of her or his models. It should be remembered, too, that not only is a good memory essential to the work of a first-class copyist, but that work of this character develops and strengthens the memory; and memory is mind.

Demand for Expert Typists.

We have no hesitation in saying that the manipulation of the typewriter should form part of the education of all middle-class girls. Such training, indeed, cannot fail to be beneficial to them, whether they are intended to become women workers or are destined for a more domestic life: for



THE No. 10 LIGHT-RUNNING YOST.

the typewriter is becoming more and more in evidence as the correct vehicle of polite correspondence. Education committees and the managers and principals of schools are becoming increasingly convinced of the desirability of having typewriting classes for the tuition of the youth of both sexes; for although by far the majority of operators are young women, the demand for expert male shorthand-typists is at the present time greater than the supply; and this is naturally inducing youths who join evening continuation classes to show a decided preference for a school at which the typewriter is taught.

A Word for Education Committees.

Now, if it be granted that it is necessary that typewriting should be taught in all girls' schools, and in evening continuation schools to both young men and women, it will be as readily conceded that it is to the interest of the teacher to teach, and of the students to learn, the working of the most successful typewriter—the machine for whose operators there is likely to be a constant and increasing demand.

It is extremely unlikely that, in what we may term the commissariat department of our national schools, there will be any expert knowledge of the mechanical principles which govern the typewriters that are, in bewildering number, offered to the public. But without this knowledge, the practical business men who are usually elected to form this department, can have no difficulty in arriving at the conclusion that the machine selected must be of simple construction, easy to manipulate, and therefore soon learned, durable in wear, and capable of turning out work that will please the examiners and visitors and that is a credit to the school.

The Popular Typewriter.

The typewriter which perpetuates the name of that mechanical genius, Mr. G. W. N. Yost, possesses in an eminent degree all the above qualifications; and it is probable that the most modern and improved machine, that known as the No. 10 Light-running Yost, will supersede other machines as the typewriter for educational purposes.

Our illustration, which is from a photograph, depicts a class of evening continuation students in one of the London County Council schools about to receive a lesson in the working of the Yost machine. We may say that the Yost is exceedingly popular in various County Council schools in London and the provinces. It is also used in the following public institutions:—

People's Palace, Mile End Road, London; South-Western Polytechnic, Chelsea, London; Mechanics' Institute, Stockport; Northern Institute, Leeds; School of Science, Liverpool; Exeter Hall, Strand, London (Headquarters of the Y.M.C.A.); Regent Street Polytechnic Institute, London; Free Library, Salford; Mechanics' Institute, Stalybridge, and in numerous technical schools, commercial schools, higher-grade schools, colleges, &c.

This typewriter is also largely used for educational purposes in Scotland and Wales, and the company has received many testimonials from teachers and principals in regard to its value. The following letter from the headmaster of the Church of Scotland Normal School, Dundas Vale, Glasgow, testifies to the popularity of the Yost among pupils:—

"Glasgow, 5th October, 1900.

"In reply to your kind inquiry about the progress of the typewriting class here, I may say that the pupils, twenty-six in number, have taken to the work with enthusiasm. They are deeply interested in the work and engage in it with unflagging zeal. Indeed, so much is this the case, that already, though they have only received about eight lessons, several of the pupils are wonderfully expert at the instruments. The class is a very popular one, and it is a great success."

Another letter, from the Secretary of the Municipal Technical School at Swansea, may be quoted for the testimony it bears to the wearing capacity of the machines:—

"2nd Dec., 1904.

"I have much pleasure in stating that the three Yost machines supplied to this College for teaching purposes have given every satisfaction. After continuous use for a period of five years by pupils learning typewriting (a test much more severe than if used by an ordinary operator), these machines are still in good order, whilst the cost of repairs has been almost nominal."

Living Advertisements.

The Yost Company has always been to the fore in drawing attention to the educational utility of the typewriter. A shorthand and typewriting school (since disposed of to Professor Cusack) was for several years run in connection with the general business at Holborn Viaduct, the company engaging some of the most able teachers in the metropolis, and doing everything in its power to emphasise the educational value of the art of typewriting, and to further the interests of those young people who learned to operate its machine. To this end, an employment bureau was established, which did much to popularise the Yost Typewriter among young operators of both sexes, the simplicity of the machine enabling capable youths to rapidly become expert upon it. Moreover, the company formed the admirable rule not only of promptly placing out competent operators (we believe quite free of cost), but of keeping an eye on the laudably ambitious, and assisting the capable among such to better appointments. These bright youths became in time enthusiastic living advertisements of the Yost machine, so that the kindly interest taken in them has proved mutually beneficial, and was

evidently conceived in the highest spirit of that far-seeing business acumen which at once promotes the welfare of a great commercial enterprise, and of deserving individuals who come in contact with it.

A Triumph of Engineering.

The new model, No. 10, Light-running Yost, of which we give an illustration, has been introduced to take the place of the No. 4 pattern; and, while retaining the original and unique principles of construction to which that well-known machine owes its success—namely, the ink-pad instead of ribbon, the beautiful work it executes, the common-sense full keyboard (no shift-keys for capital letters or other signs, but a key for every character), the centre guide, which preserves the alignment, and the pointer indicating the writing point—embraces not only improvements in the method of applying these principles, but many entirely new mechanical devices which add materially to the facility with which the machine can be operated, its capacity for turning out good work at a high rate of speed, its reliability under heavy pressure of work, and its great lasting powers. The improved model is, moreover, a much quieter machine than the No. 4, and has a lighter touch; both of which points will commend it to teachers. It has eighty-five characters, each having a separate type; and a glance at the illustration will show that it is a solid, handsome, and compact instrument.

Secret of the Beautiful Type.

The pad consists of a circular strip of felt, conveniently secured in a metal case, and is thoroughly impregnated by a secret process with a peculiar ink, which is always held in suspension in the pad like water in a sponge. This special ink, acting by the law of capillary attraction, feeds all parts of the felt equally, no matter how much or how little there may be in it, and as the types when not in use rest on the surface of the felt they are naturally always evenly covered with ink. The pad can be easily removed by depressing the keys with the plate provided for the purpose, grasping the two small knobs on the pad case, and giving the pad a slight turn, when it will be left quite free for removal. As there is no intervening ribbon, the steel types come into direct contact with the paper, and give a sharply-defined and unblurred impression. The pad being protected from dust and dirt by the metal case, the ink does not dry up, and, as there is no ribbon to press the ink into the type faces, the types never become clogged. The troublesome process of picking the types is therefore unnecessary with the Yost. In fact, from the time it is put into the machine until the ink supply is exhausted the Yost pad needs no attention whatever. The complicated and troublesome auxiliary machinery—spooks, cranks, etc.—necessary to the working of the ribbon of other typewriters, and requiring more or less constant attention, is avoided. The writing from the Yost is of a uniform colour, and continues so until the ink is exhausted. With the "Record" pad the writing is of a deep black, and remains absolutely permanent.

The Yost pad contains from ten to twenty times as much ink as a ribbon; the cost of the upkeep of the Yost machine in this respect is therefore very much less than the maintenance of a ribbon machine. The pad is guaranteed for six months, but generally lasts the greater part of a year, and many instances are on record where Yost pads have done good service for over two years.

Perfect Alignment.

The Yost type-bar is one of the cleverest pieces of mechanism ever invented. It does not rise and fall or swing from a hinged joint, but unfolds, and after striking the paper refolds and returns to its original position. It is so quick and accurate in its action that the speed at which the Yost machine can be worked is only limited by the degree of capacity of the operator. All the types, which are cut on small, bevelled blocks, strike through a centre guide, which is made of specially hardened steel, and correspondingly bevelled. As the types are thus conducted to the writing point, and are cut in alignment on the type blocks in the first instance, variation from perfect adjustment at the printing point is impossible; and just so long as a Yost typewriter lasts—and these machines are as durable as any on the market—so long will it do good work in perfect alignment. This is a point which cannot be claimed for any other writing machine.

An Incident of the Boer War.

In connection with the South African War, an incident occurred which has an important bearing on the permanency of the writing done with the Yost Record pad. Some deeds, typewritten on a Yost machine fitted with a Record pad, were buried by the Boers when they left their farms; and these documents were left in the earth for over twelve months entirely unprotected by any box, paper, or cardboard, but simply tied together with a piece of string. Originally certain names in these documents were underlined with red ink by the pen and other parts were impressed with a rubber stamp. When the deeds were disinterred the red ink had almost entirely disappeared, the rubber impressions had quite gone, leaving no mark whatever, and the signatures to the documents were partly faded, but the typewriting was as good as on the day it was done. This shows in a remarkable degree the permanency of Yost typewriting over any other form of writing.

An Unparalleled Record.

The simple construction of the Yost also makes it readily adaptable to the needs of foreign countries, and among the different languages to which it has been adapted are Arabic, Sanscrit, Hindustani, and Esquimaux, in addition to all Continental languages, including Greek. It is estimated that there are over 70,000 users of this machine, representing every profession and calling in connection with which there is writing to be done. It is used by nearly every government of Europe (H.M. Indian Government has purchased over 1,000, which are giving great satisfaction), by nearly every railway company, and most of the engineering firms, who, above all, are in the best position to judge of the qualities and capabilities of a mechanical invention. Such a record is without parallel in the history of typewriters, and can only have been attained on account of overwhelming merit.

YOST TYPEWRITER CLASS AT A LONDON COUNTY COUNCIL SCHOOL.

The new Corporation Crematorium at City Road Cemetery, Sheffield, was used for the first time on Monday.

The Darlington Corporation is seeking permission to spend another £50,000 on the extension of the municipal gasworks. These and the waterworks provide revenue that relieves the rates to the extent of nearly 2s. in the £.

Mr. R. H. Bicknell, M.Inst.C.E., has been appointed to hold an inquiry in the Municipal buildings, Liverpool, on Tuesday next, at ten o'clock, as to the City Council's application for sanction to borrow £26,000 for the erection of public baths and washhouses in Speke Road, Garston; £2,650 for a new district fire station in Kildonan Road, Aigburth; and £3,100 for the purchase of part of the Wavertree Green, for public walks and pleasure-grounds.

Pursuant to a resolution of the Liverpool City Council, on 5th April, the Town Clerk (Mr. E. R. Pickmere) has prepared a report on the Shop Hours Act. He holds that the resolutions of certain trade associations asking the Council to put the Act in operation will be taken as *prima facie* evidence of a case for a closing order or orders. He proceeds to point out that the preparation of a register of shopkeepers is required before a poll can be held to ascertain whether the two-thirds majority in favour of closing exists. The preparation of the register and the ballot would entail considerable expense, while it remains to be seen whether the closing orders are to apply to the whole of the city or only to certain areas, and whether Bootle will obtain orders on the same lines as Liverpool. At present, however, the Council is only asked to authorise the Health Committee to draft the order or orders which may be demanded.

The Ratner Safe Company, Limited, 51, Moorgate Street, E.C., has received, by last mail from its South African representatives, the following striking testimonial to the fire-resisting qualities of Ratner safes:—"Dear Sirs,—Referring to your favour of the 29th instant, *re* your safes and the destruction of my premises by fire on the 22nd November last, I have pleasure in stating that your safes were surrounded by several tons of carriage and wagon wood, burning fiercely for several hours. I really did not expect them to stand such a strong fire for such a length of time. In the afternoon, after they had cooled down, I had them removed to temporary premises, and without much trouble had them opened with their own keys. I was amazed to find their contents "intact." In fact, I cannot speak too highly of the fire-resisting qualities of your safes, and have shown them to quite a number of people, at the same time recommending them to those in want of a really good and reliable safe. I am sending one by rail to-day. I may say that I have purchased one of your large safes, size 48in. by 24in. inside measurements, two drawers.—Yours faithfully. (Signed) Ben Hartley."

PORTLAND CEMENT.*

It Brings Birmingham Water Supplies from Welsh Mountains, and is Otherwise an Invaluable Article. Methods of Manufacture in Great Britain and Abroad. Various Approved Methods of Testing the Cement. A Paper that will be Read with very Great Interest by Municipal Surveyors and Engineers and General Contractors.

[*By Mr. H. K. G. BAMBER, F.C.S.*]

CONVERTING the chemical symbols in this instance into words, we have the following:—

$$\frac{\text{lime}}{\text{silica + alumina}} = 2.75.$$

The atomic weight of an element is that weight which is the greatest common divisor of the various weights of that element occurring in the molecules of its compounds, the atomic weight of hydrogen being taken as unity.

CaO. The atomic weight of calcium being 40, and that of oxygen 16, and as in lime (CaO) we have one atom of calcium combined with one atom of oxygen, we have a compound having atomic weight of 56. Dividing 61.9, the percentage of lime present in the cement under discussion, by the atomic weight of lime, *i.e.*, 56, we have

56) 61.9 (1.105.

SiO_2. The atomic weight of silica being 28.2, and that of oxygen 16, and as in silica we have two atoms of oxygen combined with one atom of silicon, we have a compound with a sum of atomic weights equals 60.2. Dividing 22, the percentage of silica present in this cement, by the atomic weight of silica, *i.e.*, 60.2, we have

60.2) 22.00 (0.366.

Al_2O_3. Atomic weight of alumina being 27, and that of oxygen 16, and as in alumina we have two atoms of alumina combined with three atoms of oxygen, we have a compound with a sum of atomic weights of 102, *i.e.*, 27 x 2 plus 16 x 3, equals 102. Dividing 7.6, the percentage of alumina present in the cement, by the atomic weight of same, *i.e.*, 102, and we have

102) 7.600 (0.0745

We now have the data for converting the chemical symbols of the equation into figures, as follows:—

$$\frac{1.105}{0.366 + 00.745} = \frac{1.105}{0.441} = 2.505$$

a figure well within the limits allowed in the new standard specification for cement.

The clinker manufactured by the rotary process, as already described, is practically free from an admixture of fuel ash; and, consequently, although manufactured from the raw material of the same composition as used by the older processes, the actual lime present, the whole of which is chemically combined, is presumably, though not actually, higher than when burned by the older processes, in consequence of the absence of ash mechanically mixed with the old process clinker. No decision, however, can be arrived at as to the quality of cement merely on a chemical analysis; but the data thus obtained is extremely useful in conjunction with results of other tests to be described.

A Mechanical Test.

Fineness of Grinding.—As already described, it is customary with a high-class of Portland Cement to grind to very great fineness as compared to comparatively recent practice, when a cement containing 15 per cent. residue on a 50-mesh sieve (2,500 meshes per square inch) was quite common, and considered fine-ground.

In ordinary practice of to-day, the cement is ground so that the whole passes a 50-mesh sieve, as just mentioned, and leaving residue as follows:—

50 (2,500 per square inch)	...	trace	per cent.	residue.
76 (5,776 " ")	...	1 to 3	"	"
100 (10,000 " ")	...	3 to 5	"	"
180 (32,400 " ")	...	15 to 20	"	"

In making this test, which is purely a mechanical one, care must be taken first to see that the sieve used is made of correct standard wire. It will be readily understood, especially in connection with the very fine sieves, such as the 100 and 180, that the diameter of the wire with which the sieve is woven, has an important bearing on the size of the hole; the larger the wire the smaller the hole. If this is not taken into account, it will be seen, for instance, that the 100-mesh sieve might really be a finer sieve than the 180, by reason of the larger wire leaving less relative space for the passage of the cement in the 100 than in the 180. The standard usually adopted is that the diameter of the wire for each different sieve shall in each case be equal to half the diameter of the hole—thus for the 76-mesh sieve the diameter of the wire will be 0.0044 inch, corresponding to a total wire width per inch of 0.3344 inch (76 x 0.0044), or one-third of the space—thus each hole with this wire will be twice the width of the latter.

For the 100 (10,000 holes) sieve, diameter of wire 0.0032 (100 x 0.0032), total width of wire 0.32 inch, as nearly as can be one-third.

For the 180 (32,400 holes), diameter of wire 0.0018 inch 180 x 0.0018), total width of wire 0.324, again as nearly as possible one-third.

Handling the Sieve.

Sieves of these standards are readily obtainable.

Having a sieve of the correct standard, great care should be taken not to lose any of the residue during shaking, and the operation of shaking should be continued, especially with the finer sieves, until no more residue is coming through, which can be easily seen by sifting over a piece of white paper. The residue is then weighed —not the flour which has passed through, which latter is liable to loss during the operation of sifting.

By continual use, especially if kept in a damp place, the mesh of the wire is likely to become choked with fine cement; more especially is this the case with the finer sieves, in which case, of course, the results are absolutely misleading and incorrect.

Sieves can be cleaned by washing in very dilute hydrochloric acid, and afterwards with clean fresh water, and then thoroughly drying.

Most of the disputes from time to time on the question of fineness arise from one or other of these causes, and if the conditions mentioned were followed much friction would be saved.

The Flourometer.

Another method of determining the fineness of cement is by means of an apparatus known as the flourometer. With this apparatus air is blown under a constant pressure through a known weight of cement. The process, however, is somewhat lengthy and tedious, and the results are also variable if the pressure is not constant and uniform, in the same way that results of sifting are variable when care is not taken to use standard wire meshes.

To Estimate Calcination

Specific Gravity.—This test has superseded the "weight per bushel," and is a much more reliable test than the latter. It is not affected by the fineness of grinding, which destroys entirely the value of the "weight per bushel" test. This test is applied as a measure of the calcination to which the cement has been subjected, as, should there be any considerable proportion of underburnt or lightly combined clinker present in the cement, which would be likely to cause unsoundness, the specific gravity would fall below 3.125, which is taken approximately as the standard for well-burnt cement.

This test is also affected, as is the chemical analysis, by exposure to the atmosphere, and in every case the conditions of sampling for this test, as for that for analysis previously described, should be enforced.

As is well known, the specific gravity of a substance denotes the ratio of the weight of any volume of that substance, as compared to an equal volume of pure water at its point of maximum density, 4deg. Cent. or 39.9deg Fahr.

Well-burned fresh cement is 3.125 times heavier than water; but it will be readily understood that if the cement is allowed to combine with varying proportions of water and carbonic anhydride before the specific gravity test is made, there will be a reduction in the relative weight or specific gravity in direct proportion to the amount of absorption. Samples, therefore, should be kept in hermetically sealed vessels out of contact with the air.

This test, when required, is usually carried out by the expert engaged to examine and report on the cement, who is, of course, fully aware of all the conditions under which the test has to be carried out.

When such is not the case, and the test is made at the works, great care must be taken to get reliable results. The system consists of measuring the volume of a given weight of cement in some liquid not affecting the cement. Petroleum free from water is the most convenient medium; but care must be taken to record carefully the temperature of the petroleum and apparatus at the commencement of the operation, and to see that the same temperature is restored before reading the displacement caused by the introduction of the cement. If this is not done, the volume of the cement added to the petroleum will be recorded *plus* the expansion of the petroleum, or *vice versâ*.

Causes Affecting Setting.

Setting Time.—The new standard specification provides for cement of various setting times, and describes these as follows:—

"There shall be three distinct gradations of setting time, which shall be designated as 'Quick,' 'Medium,' and 'Slow.'

"*Quick.*—The setting time shall be not less than ten minutes, nor more than thirty minutes.

"*Medium.*—The setting time shall be not less than half an hour, nor more than two hours.

"*Slow.*—The setting time shall be not less than two hours, nor more than five hours."

Here, again, the cement supplied by a manufacturer to a required setting time may vary considerably in its setting characteristics, in accordance with the amount of aeration to which the sample is subjected; and this unavoidable variation, due to atmospheric causes, is a fruitful source of trade disputes. The cement should, as far as possible, be tested as received.

The method for testing the setting time most in favour is that of the use of a weighted "needle," having a point 1-16-inch square and weighing in all 2½lb. The cement is not considered set so long as an appreciable impression is made when the needle is carefully applied to the surface of the pat.

In gauging the pat for this test, sufficient water should be used to make a plastic mass, but care must be taken not to use an excess of water, which would result in a scum on the surface of the pat, which would make observation of the real impressions difficult and lead to divergent results.

Many cements, especially those of a slow-setting character, will continue to show faint impressions upon application of the needle long after the actual "setting" has taken place, which will continue until the superficial hardening of the pat prevents any further marking.

In cement of this description experience only can guide one in fixing the point when setting is complete and hardening in progress.

(To be concluded.)

* Paper read at the District Meeting of the Incorporated Association of Municipal and County Engineers, held at Birmingham.

GREAT ECONOMY WITH

GALLOWAY BOILERS AND ENGINES

STEEL BOILERS. ALL SIZES AND PRESSURES. **READY DELIVERY.**

STEAM ENGINES. HIGH-SPEED AND OTHER TYPES **QUICK DELIVERY.**

ENGINE AND BOILER REPAIRS PROMPTLY EXECUTED.

BRANCH OFFICES:

LONDON: 17, Philpot Lane.

GLASGOW: 128, Hope Street.

BIRMINGHAM: Iron Exchange.

NEWCASTLE-ON-TYNE: 13, Mosley Street.

GALLOWAYS LIMITED

MANCHESTER.

"SANALENE"

One Gallon covers from 60 to 70 sq. yds. on a prepared surface.

The Latest Production.

A PERFECT ENAMEL PAINT.

Flows Freely, Hard Wearing, Easily Washed and Polished.

"SANALENE"

BLUE LABEL

For Inside Use.

FOR PRACTICAL WORK BY PRACTICAL USERS.

Supplied in White or Colours, as desired.

For Colour List and Full Particulars, apply to—

ASPINALL'S ENAMEL, Ltd.,

NEW CROSS, LONDON, S.E.

RED LABEL

For Outside Use.

XHIBI-

nds of tons
m, Morton
the world.

. and
don
cir

ous
fect
ted
Th mp
interi use.
"Brig ay"
vay in wch a
ended fm an
in an inerted
um dowward
obvious lvan-
y to specially

emphasise. The three mantles are so arranged as to have the appearance of one large, brilliant incandescent ball.

The lamp is rain and wind-proof. The extraordinary effectiveness of the "Brightray" is demonstrated by the illumination by its means of the bandstand. With ordinary pressure and a consumption of 10 to 12 cubic feet of gas per hour, it is said to give a perfectly shadowless light of between 200 to 250-candle power.

The Glasmi mantle, which is used extensively by gas companies and corporations, is hibited in the various stages of its manu- e. It is made in sizes to suit all burners for high and low pressure lighting.

other new design, introduced by Messrs. th, is the "Kensington" Incandescent Arc p. This is supplied with three or four n-power burners, consuming about 3¾ cubic t per hour for each burner at ordinary ssure. and is supplied with three kinds of es, viz., clear, opalene, and diagonal opal flint. For outside lighting, the "Ken- ton" will be found to give a powerful at a small cost.

A SATISFACTORY FILING SYSTEM.

A READY and adequate system of filing has become an essential part of the equipment of every well-ordered office. There is no lack of choice, and the only difficulty lies in selecting the best.

We have received samples of the Stolzenberg letter file, which appears to us to fulfil all the requirements of an efficient file. The Stolzenberg Patent File Company has made a special study of the subject in all its bearings, with the result that the accuracy and general advantages of the system are leading to its adoption in Government offices, County Council departments, and in numerous great railway and commercial undertakings. It is found to be of the greatest service to municipal corporations, district councils, educational authorities, technical instruction committees, and similar bodies throughout the country.

The Stolzenberg system [illegible] costing a few pence, and simple as this unit seems, it is possible to bnild up therefrom a filing system suitable for the most complex needs. One file to one subject is the method which the company recommends, and used in this way all the papers on each subject are gathered together in the order of their receipt, and when reference to the matter is necessary, the whole of the correspondence or papers are easily found in their proper position in the system placed together in one neat file; thus one simple and neat collection of the papers necessary is substituted for the weary search through many bulky and dusty files, and a prolonged reference, perhaps through a dozen large books. The Stolzenberg Filing System may be carried on under either the alphabetical or numerical plan, and there are also the further advantages of economy in space and expense of up-keep, and a great reduction in the time and the labour necessary in keeping the filing system up to a practical standard of efficiency.

The company will be pleased to furnish further particulars on application at their offices, 50 and 52, Bishopsgate Street Without, London, E.C.

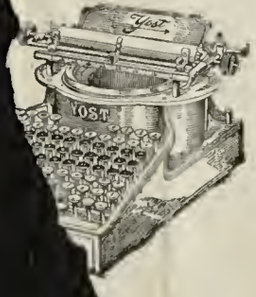
A DEVONSHIRE RESORT.

NOT the least charming of the many delightful holiday resorts of Devonshire is the ancient town of Brixham. Its attractions are worthily set forth in an illustrated guide issued by the District Council. The booklet is well printed and well illustrated, and concisely indicates all the points of interest in the locality. Visitors will find a variety of striking coast scenery, good fishing, interesting drives, safe boating and bathing, and a golf course among the advantages of Brixham.

Those to whom warmth is essential will find the valleys most to their liking, whilst a more bracing climate is to be enjoyed on the heights. The clerk of the Council will be pleased to forward the illustrated booklet on application.

ŌST

ITER FOR BEAUTIFUL WORK.



ONS.
HIFT-KEY.

OUCH.
NOISELESS.

OKLET, POST FREE.

D.,
T, LONDON, E.C.

THE ROYAL SEAL IS AFFIXED TO

PARRY'S PATENT FIRE-ESCAPE

ONE PERSON, IN ONE MOMENT!

Alarms all Residents. Alarms Fire Brigade. Alarms Police.

And Transforms the apparent Rain Pipe into a **RIGID LADDER**—close by the Window Sill of **EVERY FLOOR**—for the Inmates' Escape and the Firemen's use.

ALL THIS IN ONE MOMENT, BY ONE PERSON.

Price £15 to £30.

PARRY & CO.,

68, St. ANN'S RD., STAMFORD HILL, LONDON.

Demy 8vo., cloth gilt, 3s. 6d. Post free, 3s. 11d.

THE

MUNICIPAL YEAR BOOK

For 1904.

COMPLETELY RE-WRITTEN & RE-ARRANGED

MOST VALUABLE MUNICIPAL WORK of REFERENCE published.

MANY NEW FEATURES.

LONDON: EDWARD LLOYD, Limited, 12, SALISBURY SQ., E.C.

Tenders Wanted.

Latest date for sending in tenders in parentheses.

Alterations to Schools. J. Vincent, Clerk to District Council, Town Hall, Leyton. (December 6.)

Baths—Building, Boilers, Machinery, &c. H. Ward, Council House, Handsworth, near Birmingham. (December 5.)

Bridge Widening. H. T. Wakelam, County Engineer, Middlesex, Guildhall, Westminster, S.W. (December 5.)

Building Engine House. Atherstone Damant, Council Offices, Cowes. (December 7.) See advt. in No. 616.

Building New School. T. Lewis, Town Hall, Hereford. (December 5.)

Building Water Tower. Atherstone Damant, Council Offices, Cowes. (December 7.) See advt. in No. 616.

Building New Schools. Secretary, Education Committee, The Forbury, Reading. (December 9.)

City Hall—Erection of. Public Works Office, City Chambers. Edinburgh. (December 5.)

Clothing—Police. Chairman, Watch Committee, Town Hall, Chester. (December 6.)

Clothing—Police. W. Thornton, Chief Constable, Town Hall, Gravesend. (December 20.)

Clothing, Police. H. Monckton, Town Clerk, Maidstone. (December 14.)

Coal. E. Laverack, Town Clerk, Town Hall, Hull. (December 10.)

Coke or Clinkers. H. A. Winser, Town Clerk, Kingston-on-Thames. (December 6.)

Conversion of School into a Home. Plans invited. W. Thurnall, Clerk to Guardians, Brook Street, Kennington Road, S.E. (December 20.)

Electricity Meters — Testing. R. S. Lewis, Clerk of District Council, Llandilo. (December 6.)

Electric Lighting Installation. F. A. Newington, Electricity Supply Station, 1, Dewar Place, Edinburgh. (December 14.)

Electric Light Wiring, &c. C. Johnson, Clerk to Guardians, Union Offices, Stockport. (December 12.)

Electric Tramways (Shanghai). Messrs. Pook and Co., 63, Leadenhall Street, E.C. (March 31, 1905.)

Electrical—Transformers, Pillars and Switchgear, and Overhead Travelling Cranes, for Johannesburg Municipality. Mordey and Dawbarn, 82, Victoria Street, Westminster, S.W. (December 27.)

Engine and Suction Gas Plant. Atherstone Damant, Council Offices, Cowes. (December 7.) See advt. in No. 616.

Fire Escape Shed. Henry Humphris, Council Offices, The Burroughs, Hendon, N.W. (December 12.)

Fire Mains. Chimney Shaft, Boiler, &c. F. R. Howlett, 9, King Street, Maidstone. (December 13.)

Flag Making Plant. Chairman of Paving Committee, Town Hall, Manchester. (December 7.)

Fodder, &c. A. W. J. Russell, Town Clerk, Town Hall, Paddington, W. (December 5.)

Forage Preparing Plant. John W. Benton, Clerk to District Council, Town Hall, Ilford. (December 12.)

Furnitnre. James Smyth, Education Office, Katharine Street, Croydon. (December 10.)

Gas Engines, &c. Clerk of L.C.C., Spring Gardens, S.W. (December 6.)

Gates for Level Crossing. C. H. Fry, Clerk to District Council, Erith. (December 12.)

Groceries, Tobacco, &c. Charles Fitch, Clerk to Visiting Committee of City of London Asylum, Guildhall, E.C. (December 16.)

Heating, Ventilating, and Hot Water Plant. R. W. Partridge, Asylum Committee Office, 6, Waterloo Place, S.W. (January 23.)

Heating and Ventilating. Public Works Office, City Chambers, Edinburgh. (December 5.)

Kerbing. W. Smith, Council Offices, Romford. (December 5.)

Loans of £54,000 and £25,000 required by Urban District Council. Nasmith, 40, Brazennose Street, Manchester. See advt. in No. 616.

Lease of Bridge Tolls. R. Percy Dale, Town Clerk, Guildhall, York. (December 15.) See advt. in this issue.

Loans of £1,130 and £1,804. Fras. Truscott, District Council Office, Truro. (December 6.)

Loan of £3,150. A. Collingwood Lee, Clerk to District Council, Cheshunt. (December 5.)

Loan of £500. S. Spry, 53, Albert Road, Middlesbrough. (December 13.)

Loans of £100 and Upwards. W. Bateson, Borough Treasurer, Blackpool. See advt. in No. 616.

Meters—Dry. J. Milliken, Town Clerk, Bangor, Ireland. (December 20.)

Oil-Engines. T. J. Sworder, Welwyn District Council Offices, Hertford. (December 19.)

Preference Stock—4½ per cent. (Sutton Water Co.). P. Anderson, Carshalton Road, Sutton, Surrey. (December 8.)

Printing. F. R. Pascoe, Education Office, Truro. (December 12.)

Provisions. F. G. Beeching, Clerk to Managers, West London School, Ashford, Middlesex. (December 9.)

Pumps—8in. Three-throw Well Pumps. Atherstone Damant, Council Offices, Cowes. (December 7.) See advt. in No. 616.

Pumps—Taking out and Re-fixing. Atherstone Damant, Council Offices, Cowes. (December 7.) See advt. in No. 616.

Pumping Machinery, &c. Competitive Designs and Tenders. J. L. Wheatley, Town Clerk, Town Hall, Cardiff. (December 21.)

Pump—Worthington Type. Sub-Committee for Water Supply, Asylum, Brentwood. (December 3.)

Reservoir Construction. &c. T. E. Pearson, Town Hall, Settle. (December 5.)

River Improvement. John Price, City Surveyor, Council House, Birmingham. (December 8.)

Road Metalling. W. B. Prosser, Sessions House, Maidstone. (December 17.)

Road Works. W. Farrington, Council Offices, Woodford Green. (December 6.)

Road Improvements. G. E. Brydges, Town Clerk, Town Hall, Ealing, W. (December 8). See advt. in No. 617.

School Buildings—Remodelling. Competitive Designs invited. J. W. Watkins, Education Office, Llanelly. (January 31.)

Sewerage and Drainage Works. Clerk of District Council, Public Offices, Southall, Middlesex. (December 13.)

Sewage Works Extensions. W. Cobbett, Clerk to District Council, Alderley Edge. (December 5.)

Sewer Construction. Henry T. Weyman, Clerk to Wigmore District Council, Ludlow. (December 31.)

Sewer Construction. Chairman, Public Works Committee, Council House, Birmingham. (December 7.)

Sewerage and Sewage Disposal. Francis H. Phillips, Town Clerk, Chippenham, Wilts. (December 13.)

Sewerage Works. E. McIlquhoun, Essex Place, Cheltenham. (December 20.)

Sewerage and Sewage Disposal. H. J. Bracher, Clerk to District Council, 33, Earl Street, Maidstone. (December 21.)

Sewerage and Sewage Disposal. A. W. Carver, Union Offices, Cannock, Staffs. (December 8.)

Stationery and Printing. W. T. Postlethwaite, Council Office, Swinton, Manchester. (December 6.)

Stores and Materials. Sir Samuel G. Johnson, Town Clerk, Guildhall, Nottingham. (December 8). See advt. in No. 617.

Stores, Materials, &c. C. W. Tagg, Town Clerk, Town Hall, Camberwell. (December 5.) See advt. in No. 614.

Street Lamp-Lanterns for Sale. Engineer, Council Offices, Hendon. (December 12.)

Supplies. Henry F. Aveling, Clerk to Guardians, 313-319, Harrow Road, W. (December 7). See advt. in No. 617.

Surface Water Drain. E. Cripps, Union Offices, Ham Road, New Shoreham. (December 5.)

Tramway Offices. C. Sydney Watson, Clerk to District Council, Town Hall, Walthamstow. (December 7.)

Tramways — Motor-Cars, Trucks, Motors, &c. C. H. Fry, District Council Officer, Erith. (December 19.)

Water Main. Atherstone Damant, Council Offices, Cowes. (December 7.) See advt. in No. 616.

Undergrond Conveniences. J. A. Johnson, Town Clerk, Town Hall, Walworth Road, S.E. (December 21.)

Water Mains. D. Rankine, Council Offices, Haywards Heath. (December 16.)

Water Tanks—Cast Iron. Clerk of London County Council, Spring Gardens, S.W. (December 13.)

...' Guide to Contractors.

...YORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

...RLIAMENTARY PLANS.
...OBT. J. COOK & HAMMOND,
Lithographers, Tothill Street,
Westminster. (Est. 1860.)

...WING.
...ME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

...OAD SCAVENGER.
F. COWLEY, C.E.,
Launceston, Cornwall.

...NITARY POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

...TAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

WATER PURIFICATION.
WILLIAM BOBY,
Salisbury House,
London Wall, London, E.C.

*** *For conditions of insertion in this column address The Manager,* MUNICIPAL JOURNAL, *12, Salisbury Square.*

...C.
...MPS.
...STON CO., LTD.,
Rugby.

...STRUCTION CO.,
LTD.,
London, S.W.

...S.
...STON CO., LTD.,
Rugby.

...Co.,
...York Street,
Westminster.

...Co. (1904), Ltd.,
...ria Park,
...London, N.E.

...GINES.
..., LTD.,
...s, Edinburgh.

...E FLAGS.
... pressure used).
CONCRETE CO., Ltd.,
The Docks, Preston.

... OTHER HARD ...G & FLOORING.
...NG CO. (1904), Ltd.,
...Park, London, N.E.

...Y.
...ONS, LTD.,
..., Keighley.

...,
..., E.C.

...NTRACTORS.

...the Officials and Members of Local Authorities

...OT DO BETTER

...running Advertisement in

...IPAL JOURNAL

...CIRCULATION

...IN EXCESS

...R LOCAL GOVERNMENT PAPER.

...AL JOURNAL, 12, SALISBURY SQUARE, LONDON.

BIRKBECK BANK

ESTABLISHED 1851.

2½ per cent. INTEREST
allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST
allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.
STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary,
Southampton Buildings, High Holborn, W.C.

TEMPERANCE PERMANENT

BUILDING SOCIETY,
4, Ludgate Hill, London, E.C.

A Safe Four Per Cent. Investment.

Free from fluctuations, and without deduction of Income Tax.

CAPITAL AVAILABLE WITHOUT DEPRECIATION
without expense and at short notice when required.

DEPOSITS RECEIVED AT THREE PER CENT.

LARGEST RESERVE
of any Building Society in the United Kingdom.

EDWARD WOOD, Manager.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment.
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

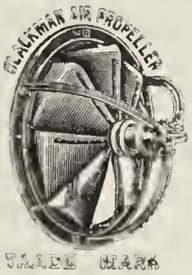
BONDS are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary SHIRLEY FUSSELL.

BLACKMAN



ELECTRIC FANS.

GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

WILLIAMSON

ASHTON-UNDER-LYNE,
Telephone 320.

FOR
TICKETS
AND
PUNCHES
FOR
TRAMWAYS, &c.

TICKET NIPPERS.

TICKETS, DATING MACHINES, AND ISSUING CASES
FOR RAILWAYS, BATHS, &c.

GRAHAM MOR

WORKS & HEAD OFFICE, LEEDS

STAND N

ALL THE HEADS OF CORPORATION DEPARTMENTS, INCLUDING CHAIRMEN AND
GO AND SEE
THE INTERNATIONAL GAS EXHIBITION, EARL'S COURT
OPENED NOV. 19th to DEC. 17.

If you want the Best
REFUSE DESTRUCTOR,
MECHANICAL
STOKER,
OR
FURNACE,

Write to

MELDRU

TIMPERLEY, near MA
66, VICT
W

12,000

Printed and Published by EDWARD LLOYD, Limited, 12, Salisbury Square,

THE SURVEYOR AND CONTRACTOR.

Schemes in Progress and Suggested. Tenders Open. New Inventions for Local Government Enterprises.

Tenders Wanted.

Alterations, &c., Cumberland Education Committee.
May 1.—For the whole of the works in connection with proposed alterations and additions to Dearham Council School. Mr. C. Courtnenay Hodgson, Secretary.

Architectural Competition, Windsor and Egham Joint Hospital Board.
May 24.—Premium of £50 for plan of isolation hospital with accommodation for 30 beds. Mr. J. E. Gale, 3, Sheet Street, Windsor.

Boundary Walls, Macclesfield Guardians.
May 1.—For the erection of the proposed new boundary walls at the workhouse. The Clerk to the Guardians.

Boilers, Edinburgh Corporation.
May 8.—For supplying water-tube boilers in connection with the electricity supply works. Mr. Thomas Hunter, Town Clerk.

Bridge, Cannock, and Stafford Rural District Council.
May 5.—For the construction of a new bridge over Longnor Brook. Mr. Herbert M. Whitehead, Engineer and Surveyor, Penkridge, Stafford.

Bridge, Barrow-in-Furness Corporation.
May 15.—For the construction of a steel road bridge over the Walney Channel, uniting Barrow Island and Walney Island. Mr. C. F. Preston, Town Clerk.

Bridge, Carmarthen R.D.C.
May 5.—For the erection of a stone bridge at Cwmyglo, Llanarthney. Mr. John Saer, Clerk to the Council.

Bridge, Worcester County Council.
May 1.—For the rebuilding of the superstructure of Starford Bridge, having a span of about 98ft. over the River Teme, in the parishes of Starford and Shelsley Kings. Mr. J. H. Garrett, Bridge Warden, Shirehall, Worcester.

Brushes, Wellingborough U.D.C.
May 2.—For the supply of not less than a gross and a half of street sweeping brushes and two re-fills of brushes to horse sweeping machine, to be delivered during the year ending 30th April, 1906, the former in half-grosses as ordered by the surveyor. Mr. J. T. Parker, Clerk to the Council.

Building, Barry U.D.C.
May 1.—For the erection of a new girls' school, to accommodate 398, together with a caretaker's house, cookery, kitchen, and a manual instruction room. Mr. T. B. Tordoff, Clerk to the Council.

Building Sites, Stepney Borough Council.
May 1.—Building sites of not less than 16,500ft. super within the borough of Stepney, suitable for the erection of a council chamber and municipal offices. Mr. George W. Clarke, Town Clerk, Municipal Offices, 15, Great Alie Street, Whitechapel, E.

Building, Southport Education Committee.
May 1.—For the whole of the works connected with the erection of the Chestergate new schools. Mr. Arthur Lawton, Secretary.

Building, H.M. Commissioners of Works.
May 3.—For the erection of a new post-office at Salisbury. The Secretary, H.M. Office of Works, Storey's Gate, S.W.

Building and Repairs, Godstone R.D.C.
May 1.—For the erection of a new mortuary, and for painting, repairs, and additions to the Isolation Hospital, Bletchingley. Mr. Evelyn A. Head, Clerk to the Council, East Grinstead.

Building, Chorlton Guardians.
May 3.—For alterations and extensions at the Withington Workhouse. Mr. David S. Bloomfield, Clerk.

Building, Cornwall Education Committee.
May 15.—For the erection of a Council school and premises at Lanivet, Bodmin. Mr. F. R. Pascoe, Education Office, Truro.

Building, Metropolitan Asylums Board.
May 3.—For erecting a large heater-room at the Brook Fever Hospital, Shooter's Hill, Woolwich. Mr. T. Duncombe Mann, Clerk to the Board.

Building, Bilston U.D.C.
May 20.—For the erection of boys', girls', infants' departments for 1,200 children, with cookery, manual training centres, and special science class-rooms, at Stonefield. Mr. Fred. M. Cooper, Education Offices, Town Hall.

Cartage, Windsor R.D.C.
May 6.—For cartage of road materials from the G.W.R. Station, Windsor, the railway stations at Dachet and Sunningdale, Ascot Siding, and Ascot Station, to the several roads in the district. Mr. J. E. Gale, Clerk to the Council.

Coal, Barnstaple Guardians.
May 5.—For the supply of best large Lydney coal, at per ton, from the 5th May, 1905, to the 29th September, 1905, to be delivered at the workhouse, and the guardians' cottage homes when required. Mr. W. H. Toller, Boutport Street.

Coal, Metropolitan Water Board.
May 2.—For the supply of 4,000 tons of best Welsh washed nuts. Mr. A. B. Pilling, Clerk to the Board, Savoy Court, W.C.

Coal, London County Council.
May 3.—For the supply and delivery of about 127,000 tons of coal of various descriptions, and 14,000 tons of coke from 1st July, 1905, to 30th June, 1906, for the several offices, schools, stations, steamboats, &c., under the Council's control. Mr. G. L. Gomme, Clerk to the Council, Spring Gardens, S.W.

Coal, Manchester Corporation.
May 10.—For supply of their requirements of cannel, screened coal, and screened nuts (unwashed) during one or two years, at their Gaythorn, Rochdale Road, Bradford Road, and Droylsden works, for the Gas Committee. Mr. Charles Nickson, Superintendent Gas Department, Town Hall.

Coal, Newton-in-Makerfield U.D.C.
May 7.—For the supply of gas coal and cannel as may be required at the gasworks from June 1st, 1905, to May 31st, 1906. Mr. C. Cole, Clerk to the Council, Town Hall, Earlestown.

Coal, Birkenhead Corporation.
May 2.—For the supply of washed slack or washed small coal for a period of 12 months. Mr. Alfred Gill, Town Clerk.

Coal, Campbeltown Corporation.
May 1.—For the supply of from 2,000 to 2,300 tons of cannel and splint coal, to be delivered free at the Old Quay of Campbeltown within twelve months from date of contract, in such quantities and at such times as required by the gas manager. Mr. Andrew Hamilton, Town Chamberlain.

Coal, Hastings Corporation.
May 9.—For the supply of 1,000 tons of hard steam coal, to be delivered within 10 months in such quantities as may be ordered by the borough engineer. Mr. Ben. F. Meadows, Town Clerk.

Coal, Wallasey U.D.C.
May 8.—For supplying best quality coal, double-screened, North Wales, Lancashire, or other steam coal, for one, two, or three years from July 1, 1905. Mr. H. W. Cook, Clerk to the Council, Egremont.

Convenience, Penge U.D.C.
May 12.—For the construction of an underground convenience in Beckenham Road. See advt. in this issue. Mr. C. W. Dommett, Clerk to Council.

Cranes, London County Council.
May 16.—For the manufacture, delivery, and erection of three 10-ton overhead travelling hand cranes at its sub-stations at Streatham, Battersea, and Wandsworth. Mr. G. L. Gomme, Clerk to the Council.

Designs for Technical Institute, Rochester Corporation.
May 15.—Three premiums are offered for above, viz., 50, 20, and 10 guineas. Mr. Apsley Kennette, Town Clerk.

Designs for Libraries, Cardiff Corporation.
June 17.—From architects who have been in practice not less than six months as principals in Cardiff, for branch libraries to be erected at Canton and Cathays.

Destructor and Flag Plant, Sydney (N.S.W.), Municipal Council.
May 30.—For the supply and erection of a six-cell refuse destructor, and for a flag-making plant, at Moore Park, Sydney. See advt. in last issue. Mr. Thomas H. Nesbitt, Town Clerk.

Destructor, Sheffield Corporation.
May 2.—For works required in connection with the erection of a refuse destructor at Primrose Meadows, Heeley. The Chairman of the Health Committee, Town Hall.

Disinfectants, Wood Green U.D.C.
May 3.—For the supply of above during a period of 12 months. See advt. in this issue. Mr. J. W. Britton, Clerk to the Council.

Disinfecting Station, Kensington Borough Council.
May 15.—For the erection of above (excluding machinery and apparatus) at one of the Council's depots. Mr. William Chambers Leete, Town Clerk.

Dock Gates, Whitehaven Harbour Commissioners.
May 8.—For the construction and delivery, and completed erection of a pair of dock gates (wood) for the Queen's Dock entrance. Mr. John Tyson, Clerk.

Drainage, &c., Kettering R.D.C.
May 1.—For the following works:—Widening of Carver's Lane, Geddington, including house breaking, stonewalling, and excavating; septic tank and drainage at Warkton; septic tank and drainage at Rushton; septic tank and drainage at Orton; septic tank at Carlton. Mr. Charles W. Lane, Clerk to the Council.

Drainage, Brandon and Byshottles U.D.C.
May 1.—For the laying of 12in. pipes and the construction of manholes, &c., at Brandon Colliery. Mr. J. G. Wilson, Solicitor, Durham.

Dredging, London County Council.
May 16.—For certain dredging to be executed in the river Thames, in front of the Crossness Outfall Works, Erith, Kent. Mr. G. L. Gomme, Clerk to the Council.

Ducts, London County Council.
May 16.—For the manufacture and delivery of 750,000 stoneware ducts for electric cables. Mr. G. L. Gomme, Clerk to the Council.

Electric Generating Station, Dublin Port and Docks Board.
May 15.—Tenders invited for above. Mr. N. Proud, Secretary.

Emergency Staircase, East Ham Education Committee.
May 11.—For iron emergency staircase at New Beckton School. See advt. in this issue. Mr. H. C. Padgett, Secretary, Education Office, E.

Excavations and Sewers, Middlesex County Council.
May 10.—For the formation of a new road 60ft. wide and about 2,160ft. long across the Red Ridge Estate, in the districts of Edmonton and Southgate. Sir Richard Nicholson, Clerk to the Council.

Firewood, Kensington Guardians.
May 4.—For the supply of 56 fathoms of best Baltic deal ends to the workhouse in the Marloes Road. Mr. W. R. Stephens, Clerk.

Firewood, West Ham Guardians.
May 3.—Tenders invited for the purchase of above at per 1,000 bundles. Mr. Fred. E. Hilleary, Union Workhouse, Leytonstone, N.E.

Flint, Arundel Town Council.
May 1.—For the supply and delivery of 200 yards, of unbroken hand-picked flints. Mr. Edward F. Farrington, Borough Surveyor.

Flint, Littlehampton U.D.C.
May 3.—For the supply and delivery free in trucks of 500 tons of clean, handpicked land flints, broken to pass through a 2-in. ring, to be delivered in such quantities as directed by the surveyor before the 31st July. Mr. Arthur Shelley, Clerk to the Council.

Furniture, Bradford Education Committee.
May 1.—For supplying furniture for the art school. The Secretary, Education Offices, Manor Row.

Furniture, Rochdale Corporation.
May 1.—For the supply of furniture and fittings required for the new tramway offices in Mellor Street. Mr. W. H. Hickson, Town Clerk.

Furniture, Sedgefield R.D.C.
May 10.—For the supply of articles required in furnishing the new fever hospitals at Sedgefield. Mr. Alfred Appleton, Union Offices.

Granite, Faversham R.D.C.
May 10.—For the supply and delivery of 1,200 tons of best Guernsey granite, hand broken to a 2in. gauge, and well screened. Mr. Allan Tassell, Clerk to the Council.

Granite, Stevenage U.D.C.
May 22.—For the supply of 1,000 tons of 1¾in. to 2in., 1½in. to 1¾in., and 1in. to 1¼in. broken Guernsey, Leicester, or other granite for the repair of roads in the district. Mr. William Onslow Times, Clerk to the Council.

Granite, &c., Southampton Corporation.
May 8.—For the supply of about 8,000 tons of broken granite and 2,000 tons of flints for road repairs. Mr. R. R. Linthorne, Town Clerk.

Hauling, Woodbridge R.D.C.
May 9.—For hauling, by horse, traction engine, or motor lorry, of from 2,000 to 3,000 tons of road material from Wilford Bridge, 1,000 to 2,000 tons from Levington Creek, 300 tons from Boyton Dock, and 500 tons from Nacton Hard, to the various parishes in the district. Mr. H. E. Kell, Clerk to the Council.

Iron Building, Bradford Education Committee.
May 1.—For the taking down of the wood and iron school building at Westfield, Wyke, and re-erecting the same in the Greengates school-yard. The Secretary, Education Office, Manor Row.

Iron and Steel, Sydney (N.S.W.) Public Works Office.
September 1.—For the manufacture, supply, and delivery in the State of New South Wales of all iron and steel required by the Government. The Agent-General's Office, 9, Victoria Street, London, S.W.

Lift Ropes, West Ham Guardians.
May 3.—For the supply and fixing at the Whipps Cross Road Infirmary of forty-one 1½in. and eight 1¼in. wire lift ropes, of a total length of 6,865 feet. Mr. Fred. E. Hilleary, Clerk.

Loans, Walthamstow U.D.C.
May 1.—For educational purposes, various loans, repayable by equal half-yearly instalments of principal and interest combined. See advt. in last issue. Mr. C. Sydney Watson, Clerk to the Council.

Loan, Cheriton U.D.C.
May 1.—For a loan of £1,400, on mortgage of the district fund and general district rates, for private street works, repayable in four years by equal half-yearly instalments, with interest on the balance for the time being remaining unpaid. Mr. Arthur Atkinson, Clerk to the Council.

Materials and Labour, Kempston U.D.C.
May 2.—For the supply of above in making Silverdale Street. Mr. William Payne, Clerk to the Council.

Materials and Labour, Lexden and Winstree R.D.C.
May 6.—For the supply and delivery of picked stones in any parish of the district; for the supply of good pit stones at the various quarries in the district; for the carting of stones from the quarries to the various parishes; for the supply and delivery of broken Kentish flints alongside the wharves at East Mersea, West Mersea Hard, the Strood, Salcot, East Donyland, &c., and for the unloading and carting from the above wharves to the roads in the various parishes. Mr. Charles H. Tompson, Clerk to the Council, Victoria Chambers, Colchester.

Materials, Peterborough Waterworks Committee.
May 2.—For the supply of 300 tons of Portland cement, 600 cube yards of gravel, 300 cube yards of sand, and 900 cube yards of brickbats, to be delivered at the Corporation siding, Etton. Mr. John C. Gill, City Waterworks Engineer.

Oatmeal, Aberdeen Lunacy Board.
May 2.—For the supply of about 90 rolls of round-cut oatmeal, made from the best quality of well-dried, home-grown oats. Mr. C. B. Williams, Clerk, 20, Union Terrace.

Painting, Metropolitan Asylums Board.
May 3.—For repairs and external painting to St. Anne's Home, Herne Bay, and for external and internal painting to Bridge School, Witham, Essex. Mr. T. Duncombe Mann, Clerk to the Board.

Painting, &c., Pembroke Town Council.
May 1.—For painting and renovating Pembroke Dock Market. Mr. R. D. Lowless, Town Clerk.

Paving, Kensington Borough Council.
May 1.—For excavating for and providing and laying creosoted deal block on concrete in West Cromwell Road, St. Quintin Avenue, and Ledbury Road. Mr. William Chambers Leete, Town Clerk

Paving, St. Marylebone Borough Council.
May 15.—For the supply and delivery of about 450,000 of 3-in. by 5-in. by 9-in., or about 504,000 of 3-in. by 5in. by 8-in. best Swedish yellow deal creosoted paving blocks. See advt. in this issue. Mr. James Wilson, Town Clerk.

Piers, Shropshire County Council.
May 3.—For the construction of new stone piers and other work in connection with the existing abutments of Buildwas Bridge. Mr. A. T. Davis, County Surveyor.

Plans for Dwellings, Norwich Corporation.
May 8.—The Housing Committee offer a premium of 20 guineas for the best set of above. Mr. Arthur E. Collins, City Engineer.

Portland Cement, Hastings Corporation.
May 1.—For the supply and delivery to Hastings Railway Station of 500 tons of above. Mr. Ben F. Meadows, Town Clerk.

Provisions and Stores, Middlesex Asylum Committee.
May 4.—For the supply of groceries, provisions, tobacco, soap, and oilman's goods for various periods. Mr. Walter G. Austin, Clerk to the Committee.

Provisions and Stores, Roxburgh Asylum Committee.
May 3.—For supplying from 16th May to 15th November next, inclusive, the following articles:—Bread, meat, oatmeal, rice, fish, and soaps. The Medical Superintendent.

Printing, Ealing Borough Council.
May 1.—For printing the burgess lists and burgess roll of the borough for one or three years (alternately). Mr. George E. Brydges, Town Clerk.

Pumping Works, &c., Bishops Stortford U.D.C.
May 8.—For supplying and fixing two Lancashire boilers, for supplying and fixing steam pumping engine and pumps, for supplying and fixing gas pumping engine and pumps, together with suction gas plant, complete. Mr. Thos. Swatheridge, Clerk of the Council.

Pumping Machinery, Swinton U.D.C.
May 2.—For making, supplying, and erecting one 25-indicated horse-power horizontal compound condensing engine, with air-pump and surface condenser; one set of two-throw well pumps; and one set of two-throw surface pumps, along with various valves and pipe connections. Mr. R. Fowler, Engineer and Surveyor.

Repairs to Road, Metropolitan Asylums Board.
May 3.—For repairs to roads at the Downs School, Banstead Road, Sutton, Surrey. Mr. T. Duncombe Mann, Clerk to the Board.

Roads, Sheffield Corporation.
May 2.—For the construction of portions of Wincobank Avenue and Foxglove Road. Mr. H. Sayer, Town Clerk.

Roads, Argyll County Council.
May 1.—For the maintenance and repair of three divisions of the roads in the Lorn district, and for certain cartage. Mr. John D. Sutherland, District Clerk.

Road Materials, Sevenoaks R.D.C.
May 2.—For the supply of quartzite, basalt or penlee, ragstone, chert, flints, &c. Mr. George F. Carnell, Clerk to the Council.

Sewage Works, Lichfield R.D.C.
May 5.—For the construction of about 400 yards of 15in., 780 yards of 12in., 2,300 yards of 9in., and 2,640 yards of 8in. stoneware pipe sewers at Chase Terrace within their district, together with the necessary manholes, lampholes, &c.; also for the construction of an open septic tank, and the laying-out of about 4½ acres of land in the same village. Mr. John Derry, Clerk to the Council.

Established 1871.

THE

LIMMER ASPHALTE PAVING CO.,

LIMITED.

Telephone: No. 2147 London Wall.

Telegrams:—"Limmer, London."

Sole Proprietors of the

MONTROTIER SEYSSEL ASPHALTE MINES, BASSIN DE SEYSSEL.

Highest Award (Silver Medal) at the Sanitary Congress, Glasgow, 1904.

FOR CARRIAGE-WAYS, FOOTWAYS, FLOORS, ROOFS, &c.

This Company's MINERAL ROCK MASTIC ASPHALTE is specified by H.M. Office of Works, the Admiralty, Home Office, and other Government Departments, in India, South Africa, &c.

LITHOFALT MASTIC PAVING—Cheap and Durable—Suitable for Footways, Railway Platforms, School Playgrounds, &c.

ARCHITECTS and SURVEYORS will secure the best work by inserting in their specifications: "All work to be done by The Limmer Asphalte Paving Co.'s own workmen."

Head Offices: 2, MOORGATE STREET, LONDON, E.C.

Sewer, Glasgow Corporation.
May 2.—For the work necessary in the construction of the sewer extending from McNeil Street to Rutherglen Road. See advt. in last issue. Mr. John Bowers, Town Clerk.

Sewerage, Windsor R.D.C.
May 20.—For the construction of main and branch sewers of stoneware pipes and cast-iron pipes, varying in size from 21in. to 9in. in diameter; flood outlet culvert of brickwork, 3ft. 6in. by 2ft. 6in., with manholes, lampholes, ventilating shafts and columns, flushing chambers, and other works incidental thereto. Mr. J. E. Gale, Clerk to the Council.

Sewers, Bromley R.D.C.
May 5.—For the construction of the following works:—8,013 lineal yards of 9in. stoneware pipe sewer; 1,928 lineal yards of 12in. stoneware pipe sewer, together with manholes, flushing tanks, and other works in connection therewith. Mr. Edward Haslehurst, Clerk to the Council.

Sleepers, Natal Government.
May 2.—For the supply of creosoted Baltic timber sleepers, or Jarrah wood sleepers. Mr. William Arbuckle, Agent General for Natal, 26, Victoria Street, Westminster, S.W.

Steam Road-Roller, Lexden and Winstree R.D.C.
May 6.—For the hire of a steam road-roller or two, at any time when required up to March 31st next. Mr. Charles H. Tompson, Clerk to the Council., Victoria Chambers, Colchester.

Street Repairing, Wanstead U.D.C.
May 3.—For making up the street known as Dover Road. Mr. William Blewitt, Clerk to the Council.

Street Works, Ventnor U.D.C.
May 3.—For the work necessary in connection with the sewering, levelling, paving, metalling, and channeling of Beaconsfield Road. Mr. Robert M. Barr, Clerk to the Council.

Street Works, Prestwich U.D.C.
May 1.—For the carrying out of private street improvements. Mr. Lewis A. Orford, Clerk to the Council.

Street Works, Bradford Corporation.
May 10.—For the supply and delivery of pitch and oil required for street paving purposes, cast-iron gullies, ventilators and storm grates, glazed earthenware pipes, blocks and junctions, house coal, timber for sewerage, and other works. Mr. Frederick Stevens, Town Clerk.

Street Works, Twickenham U.D.C.
May 10.—For the works in connection with forming, levelling, kerbing, channelling, paving, metalling, and making good March Road, Latham Road, Grimwood Road, and Radnor Gardens. Mr. H. Jason Saunders, Clerk to the Council.

Street Works, Hendon U.D.C.
May 8.—For draining, kerbing, channelling, metalling, tar paving, gullies, and other works in fully making up Argyle and Ramsey Roads. Mr. Henry Humphris, Clerk to the Council.

Streets, Southend-on-Sea Corporation.
May 4.—For the making up of Station Road and Whitefriars Crescent. Mr. William H. Snow, Town Clerk.

Stores, Portsmouth Corporation.
May 1.—For the supply during the next 12 months of ballast, Portland cement, oils, timber, fodder, general ironmongery, and other stores connected with the tramways. See advt in last issue. Mr. W. R. Spaven, General Manager, Town Hall.

Stores, Metropolitan Water Board.
May 2.—For the supply of boiler fluid, brushes and brooms, cotton waste, iron and steel, sluice valves, &c., for the ten months ending 31st March, 1906. Mr. A. B. Pilling, Clerk to the Board.

Stores, Richmond Main Sewage Board.
May 9.—For the supply of the following stores at the Board's works, Kew Gardens: steam coal, house coal, lime for precipitation, lime for sludge-pressing, sulphate and alumina, and filter cloth. Mr. J. Leslie G. Powell, Clerk to the Board.

Uniforms, Cape Colony Government.
May 10.—For the supply during the five years commencing on July 1, 1905, of uniforms for the police in the Cape Colony. The Agent-General, No. 100, Victoria Street, Westminster, S.W.

Uniforms, Metropolitan Water Board.
May 2.—For the supply of about 660 uniforms (comprising coats, jackets, trousers, and hats), and about 609 serge jackets. Mr. W. J. G. Norris, Savoy Court, Strand, W.C.

Uniforms, &c., Wood Green U.D.C.
May 3.—For the supply as required of parkkeepers', &c., uniforms. See advt. in this issue. Mr. J. W. Britton, F.C.I.S., Clerk to the Council.

Appointments Vacant.

Accountant's Clerk, Margate Town Council.
May 3.—As above in the office of the borough accountant; salary £78 a year. Mr. Edward Brooke, Town Clerk.

Assistant Clerk, Hammersmith Borough Council.
May 5.—As first assistant clerk in the Town Clerk's office; salary £150 a year, rising to £200. See advt. in this issue. Mr. H. Thompson, Town Clerk.

Assistant Engineers, Indian Public Works Department.
May 1.—The Secretary of State for India will, in the summer of 1905, make about 25 appointments as above. Mr. A. Godley, Under Secretary of State, India Office.

Assistant Lecturer, Birmingham University.
May 20.—As assistant lecturer in history; stipend £150 a year. Mr. George H. Morley, Secretary.

Assistant Mistress, Poplar Guardians.
May 5.—As assistant house and drill mistress at the schools in Forest Lane, Forest Gate; salary £30 a year, rising to £35, with board, lodging, washing, uniform, and £4 4s. a year in lieu of beer. Mr. G. Herbert Lough, 45, Upper North Street, Poplar, E.

Assistant Resident Engineer, London County Council.
May 8.—As above in the tramways branch of the engineer's department; salary £5 a week. Mr. G. L. Gomme, Clerk to the Council.

Barber and Bathman, Bradford Guardians.
May 2.—Salary £25 a year, with rations, uniform, lodgings, and washing. Mr. George M. Crowther, 22, Manor Row.

Borough Surveyor, Eastbourne Corporation.
May 1.—Salary £450 a year, rising to £600. See advt. in last issue. Mr. H. West Fovargue, Town Clerk.

Caretakers, Stockbridge U.D.C.
May 1.—Man and wife as above at a small isolation hospital; salary of man 22s. a week (constant); salary of wife 20s. a week when nursing patients, with rooms, fuel, and light in addition. Mr. J. Marsden, Clerk to the Council.

Chief Assistant Clerk, London County Council.
May 6.—As above in the office of the Asylums Committee; salary £300 a year, rising to £400. See advt. in this issue. Mr. H. F. Keene, Clerk to the Committee, 6, Waterloo Place, S.W.

Clerk of Works, Margate Corporation.
May 2.—As above in the borough surveyor's department; salary two guineas a week. Mr. Edward Brooke, Town Clerk.

Clerk of Works, Shoreditch Borough Council.
May 3.—To supervise the restoration work at the Town Hall; salary £3 13s. 6d. a week; engagement to be for about five months. Mr. H. Mansfield Robinson, Town Clerk.

Clothing Storekeeper, Chorlton Guardians.
May 1.—Single or widowed woman as above, at the workhouse, Withington; salary £25 a year, rising to £30, with residence, rations, &c. Mr. David S. Bloomfield, Clerk, Union Offices, All Saints', Manchester.

Deputy Town Clerk, Warrington Corporation.
May 1.—Candidates must be admitted solicitors; commencing salary £175 a year, rising to £250. Mr. J. Lyon Whittle, Town Clerk.

Director of Education, Rhondda U.D.C.
May 1.—Salary £400 a year. See advt. in last issue. Mr. W. P. Nicholas, Clerk to the Council.

Electrical Engineer, Southend-on-Sea Corporation.
May 8.—As borough electrical engineer and general manager of the tramways; salary £400, rising to £500. See advt. in last issue. Mr. William H. Snow, Town Clerk.

Examiner in Surgery, Society of Apothecaries of London.
May 12.—Candidates must be teachers at a London medical school, and Fellows of the Royal College of Surgeons, England. Mr. A. Mowbray Upton, Clerk to the Society, Blackfriars, E.C.

Examiner in Navigation, Local Marine Board of London.
May 5.—As junior examiner; salary £200 a year, rising to £250. The Secretary, Dock Street, E.

The Associated Portland Cement Manufacturers (1900), Ltd.

The following are amongst the BRANDS of

HIGHEST GRADE PORTLAND CEMENT

Now Owned by this Company:—

"J. B. WHITE & BROS.," "HILTON, ANDERSON & CO.,"
Francis' "NINE ELMS."

The Company has unequalled facilities for delivery to any part of the Kingdom.

OFFICES: DIXON HOUSE, 72, FENCHURCH ST., LONDON, E.C.

Fitter, City of London Guardians.
For the Infirmary, Bow Road, E., to act as assistant to the engineer; wages 18s. a week, with rations, lodging and washing, and an allowance of £4 a year in lieu of beer. See advt. in this issue. Mr. Edward P. Woodward, Clerk to the Guardians.

Foreman, Longton Corporation.
May 1.—As general carbonising works foreman; wages £2 a week, with house, coal, and gas, &c. Mr. W. Langford, General Manager.

Gas Engineer and Manager, Devonport Corporation.
May 8.—An experienced man as above at the gasworks; salary £450 a year. See advt. in this issue. Mr. R. J. Fittall, Town Clerk.

Head Master, Wolverhampton Grammar School.
May 8.—Salary £650 a year, made up of a fixed stipend and head money calculated on the number of boys in the school; the school is a first grade school, and is regulated by a scheme of the Charity Commissioners. Messrs. Neve, Cresswell, and Sparrow, Solicitors, Wolverhampton, Clerks to the Governors.

Head Master, Governors Lytham School Charities.
May 20.—As above at a school to be erected between Lytham and St. Anne's-on-Sea with accommodation for 200 boys as day scholars; salary £400 a year and a residence. Messrs. Wilson, Wright and Wilsons, Solicitors, 6, Chapel Street, Preston.

Head Master, London City Corporation.
May 20—As first or head master of the City of London School; commencing salary £1,000 a year. The Secretary, Victoria Embankment, E.C.

Highway Surveyor, Cookham R.D.C.
May 3.—Salary £120, rising to £150. Mr. William Weed, Clerk to the Council, Queen Street Chambers, Maidenhead.

House Steward, &c., Oxford Asylum Committee.
May 13.—As clerk and house steward at the Littlemore Pauper Lunatic Asylum near, Oxford; salary £150 a year, with certain rations. See advt. in this issue. Mr. Thomas M. Davenport, Clerk to the Committee. County Hall.

Housing Superintendent, London County Council.
May 1.—As superintendent of working class dwellings, comprising over 500 tenements, situated in the metropolitan borough of Poplar; wages £2 2s. a week, with use of three-roomed tenement. Mr. G. L. Gomme, Clerk to the Council.

Industrial Attendant, Metropolitan Asylums Board.
May 1.—A bootmaker as above at Darenth Asylum, Dartford, Kent: wages £32 a year, with board (no beer), lodging, washing and uniform, and an additional allowance of 10s. a quarter conditional on good behaviour. T. Duncombe Mann, Clerk to the Board, Embankment, E.C.

Master and Matron, Hitchin Guardians.
May 6.—Applicants must be husband and wife. Salaries: master, £70 a year; matron, £45; together with the usual emoluments. Mr. A. E. Passingham, Clerk.

Matron, Stockport Guardians.
May 1.—As above at the new hospital at Stepping Hill (320 beds); salary £80 a year, rising to £100, with rations, furnished apartments, and washing. Mr. C. F. Johnson, Clerk.

Medical Officer, Neath Guardians.
May 2.—As medical officer and public vaccinator for the Cymmer and Glyncorrwg districts of the parish. Mr. H. Cuthbertson, Clerk.

Porter, Barnstaple Guardians.
May 4.—As above for the workhouse; salary £25 a year, with rations, washing, and apartments. Mr. W. H. Toller, Clerk.

Porter, Hayfield Guardians.
May 1. Salary £20 a year, with rations, apartments, and washing. Mr. A. Walker, Clerk, New Mills, near Stockport.

Professor of Engineering, Birmingham University.
May 20.—As professor of civil engineering to co-operate with the professors of mechanical and electrical engineering; stipend £600 a year. Mr. George H. Morley, Secretary.

Resident Engineer, London County Council.
As above in the tramways branch of the Engineer's department, to superintend, under the direction of the Chief Engineer, the laying of the track work for the construction of new, and the reconstruction of existing tramways for electrical traction on the conduit system; the appointment is of a temporary character; salary £8 a week. Mr. G. L. Gomme, Clerk to the Council.

Sanitary Surveyor, Auckland R.D.C.
May 17.—As above, for its district; salary £250 a year, rising to £300. Mr. Sam Adams, Clerk to the Council.

Senior Clerk, St. Pancras Guardians.
May 5.—As master's senior clerk; salary £90, rising to £100 a year, with dinner and tea daily, and £2 a year in lieu of part rations. Mr. Alfred A. Millward, Town Hall, Pancras Road, N.W.

Solicitor, London County Council.
May 8.—To be responsible generally for the conduct of the Council's legal work; salary £2,000 a year. M. G. L. Gomme, Clerk to the Council.

Steward, Stockport Guardians.
May 1.—At the New Hospital, Stepping Hill; salary £150 a year, or, at the option of the guardians, £100 a year, with house, fire, and light. Mr. Charles F. Johnson, Clerk.

Swimming Instructress, Sittingbourne U.D.C.
May 2.—As above at the public baths during the ensuing season; attendance will be required from 10 to 12 o'clock on Tuesday and Wednesday mornings. Mr. Charles B. Harris, Clerk to the Council.

Superintendent and Matron, Medway Guardians.
May 6.—Man and wife required as above at the cottage homes and schools of the Guardians; salaries: superintendent £60 a year, rising to £70; matron £40, rising to £50, with the usual rations, lodging, and washing. Mr. A. Reynolds Norman, Union Offices, Chatham.

Surveyor, &c., Beeston U.D.C.
May 19.—As surveyor and sanitary inspector; salary £150 a year. Mr. W. H. Redgate, Clerk to the Council, Bentinck Buildings, Wheeler Gate, Nottingham.

Veterinary Surgeon, Leeds Corporation.
May 3.—To undertake, under the directions of the Medical Officer of Health, the duties of chief meat inspector and inspector of cows and cowsheds; salary £250 a year. Mr. Robert E. Fox, Town Clerk.

Ward Sister, Fulham Guardians.
May 3.—For the Fulham infirmary; salary £32 a year, rising to £36, with board, lodging, washing, and uniform. Mr. E. J. Mott, Fulham Palace Road, Hammersmith, W.

Woman Sanitary Inspector, Norwich Corporation.
May 8.—Salary £75 a year, with £10 a year in lieu of uniform. See advt. in this issue. Mr. Arnold H. Miller, Town Clerk.

Woman Sanitary Inspector, Wandsworth Borough Council.
May 3.—Salary £120 a year, rising to £150. Mr. Henry George Hills, Town Clerk.

TENDERS WANTED (Continued.)

Loan, Urban District Council.
May 9.—A large urban district council invites tenders for loans on the security of the general district and poor rates, repayable by equal half-yearly or yearly payments of principal and interest combined. See advt. in this issue. "U. D. C.," 1639, *Municipal Journal*, 12, Salisbury Square, Fleet Street, E.C.

Loans, Bexhill Corporation.
May 20.—For the following loans: £3,400 (25 years), electric lighting; £900 (26 years), sewage works; £375 (20 years), parks and pleasure grounds; £310 (30 years), sewage works; and £300 (20 years), street improvements. See advt. in this issue. Mr. T. E. Rodgers, Town Clerk.

Motor Coach, Australian Government.
May 8.—For the supply and delivery of a petrol-driven railway motor coach, to carry eight first and twelve second-class passengers. Mr. H. Allerdale Grainger, Agent-General for South Australia, Threadneedle House, Bishopsgate Street Within, E.C.

Oil, Manchester Corporation.
May 10.—For the supply of oil for the manufacture of carburetted gas. See advt. in this issue. Mr. William Henry Talbot, Town Clerk.

Painting, &c., Fulham Guardians.
May 3.—For painting, distempering, general repairs, &c., at the infirmary in the Fulham Road. Mr. Thomas Worlock, Clerk, St. George's Hall, Mount Street, W.

Paving, Worcester County Council.
May 12.—For supplying and laying about 3,000 super yards of concrete slab paving at Sparkhill and Hay Mills, in the parish of Yardley. Mr. J. H. Garrett, Surveyor, Shirehall.

Portland Cement, Torquay Town Council.
May 1.—For the supply of 1,000 tons of best Portland cement, required for the reservoir works. Mr. Samuel C. Chapman, Water Engineer, Town Hall Chambers.

Roadwork, &c., London County Council.
May 8.—For the roadwork, platelaying, and paving, &c., required for the construction, for electrical traction on the overhead trolley system, of the short length, equivalent to about ¾ of a mile of single track of authorised tramway in Archway Road, Highgate, between the Archway Tavern and the Highgate Tavern, in the metropolitan borough of Islington. Mr. G. L. Gomme, Clerk to the Council.

Uniforms, Portsmouth Corporation.
May 15.—For the supply and delivery o above for tramway inspectors, timekeepers, drivers, and conductors. See advt. in this issue. Mr. W. R. Spaven, General Manager.

Waterworks, Wareham and Purbeck Guardians.
May 3.—For cast-iron water mains, laying-on from the town supply, and providing and fixing hydrants for fire-extinguishing purposes at the workhouse. Mr. E. S. Clark Union Offices, Wareham.

"I firmly believe that if the children were well fed our workhouses, gaols, and asylums would soon be empty."
—Sir JOHN GORST, M.P.

ONE CUP of Delicious
Plasmon
Cocoa

Equals in nutriment ½-lb. Beef or Ten Cups of Ordinary Cocoa.
And is Absolutely Free from Chemicals.

Aids Digestion.
Braces the Nerves.
Invigorates the System.
In Tins, 5d., 9d., 1s. 4d., and 2s. 6d.

Municipal Officers' Guide to Contractors, &c.

ASPHALTE.
THE LIMMER ASPHALTE PAVING CO., LTD.,
2, Moorgate Street, London, E.C.

BOILERS, STEAM ENGINES, &c.
GALLOWAYS LTD.,
Manchester.

BUILDERS' & SANITARY GOODS.
YOUNG & MARTEN, LTD.,
Stratford, E.

CALORIFIERS.
ROYLES LTD.,
Irlam, near Manchester.

CARTOONS.
Specialists in Photo.-Litho,
Photo-Copies, and Sun Prints,
VACHER & SONS. Westminster.

CONDUITS.
THE CONDUIT AND INSULATION CO., LTD.,
Riverside Road,
Summers Town, S.W.

CONDUITS.
SIMPLEX STEEL CONDUIT CO., LTD.,
80, Digbeth, Birmingham.

CONDUIT.
THE NEW BROTHERTON TUBE CO., LTD.,
Excelsior Works, Commercial Road,
Wolverhampton.

COOKING APPLIANCES.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

DESTRUCTORS.
HORSFALL DESTRUCTOR CO., LTD.,
Leeds.

DESTRUCTORS.
MELDRUM BROS.,
Timperley, near Manchester.

DISINFECTORS
(The "Equifex").
J. DEFRIES & SONS, LTD.,
146—147, Houndsditch, E.C.

ELECTRIC LIGHTING AND LAMPS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

ELECTRIC LIGHTING.
NATIONAL ELECTRIC CONSTRUCTION CO., LTD.,
34, Victoria Street, London, S.W.

ELECTRIC TRAMWAYS.
BRITISH THOMSON-HOUSTON CO., LTD.,
Rugby.

EXPANDED METAL.
NEW EXPANDED METAL CO.,
York Mansion, York Street,
Westminster.

FIREPROOFERS OF ALL TEXTILE FABRICS.
ARMFIELD & SONS,
54, Ebury Street, S.W.

FLOORING.
ACME FLOORING & PAVING CO, (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

GARDEN FURNITURE.
S. CLARK & CO.,
Compton Works, Canonbury Road, N.

GRANITE CONCRETE FLAGS.
(600 tons hydraulic pressure used).
PRESTON GRANITE CONCRETE CO., Ltd.,
The Docks, Preston.

JARRAH, KARRI, & OTHER HARD WOODS for PAVING & FLOORING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Rd., Victoria Park, London. N.E.

LAUNDRY MACHINERY.
W. SUMMERSCALES & SONS, LTD.,
Phœnix Foundry, Keighley.

MAYORAL ROBES.
WARD & MACONIE,
15, Hanover Street, London, W.

MOTOR OMNIBUSES AND OTHER MUNICIPAL VEHICLES.
STRAKER & MACCONNELL, LTD.,
27A, Old Bond Street, London, W.

PAVING.
ACME FLOORING & PAVING CO. (1904), Ltd.,
Gainsborough Road, Victoria Park,
London, N.E.

PERMANENT PHOTO COPIES.
ROBT. J. COOK & HAMMOND, Tel. No. 551,
Lithographers, Tothill Street, Victoria.
Westminster. (Est. 1860.)

SANITARY FLOOR POLISH.
RONUK, LIMITED,
Portslade, near Brighton.

STAIR TREADS.
WM. GOODING,
North Road Works, Holloway, London, N.
Telephone No. 1633 North.

STEAM ENGINES, ALL TYPES.
RANSOMES, SIMS & JEFFERIES, LTD.,
Orwell Works, Ipswich, and
9 Gracechurch Street, London.

STONE.
WM. GRIFFITHS AND CO., LTD.,
35, Hamilton House,
Bishopsgate Street Without, E.C.

TELEPHONES.
THE BRITISH L. M. ERICSSON MFG. CO., LTD.,
Byron House, Fleet Street, London, E.C.

TICKETS & REGISTERING PUNCHES.
THE C.A.S. PUNCH & TICKET CO., LTD.,
1, Queen's Road, Dalston.

TICKET PUNCHES.
TICKET PUNCH & REGISTER COMPANY,
46, Queen Victoria Street, London, E.C.

TOOLS FOR CONTRACTORS, &c.
THE HARDY PATENT PICK COMPANY,
Sheffield.

TRAMWAYS.
DICK, KERR & CO., LTD.,
Abchurch Yard, Cannon Street, E.C.

TRAMWAYS.
J. G. WHITE & CO., LTD.,
22A, College Hill, Cannon Street, E.C.

TYPEWRITING and DUPLICATING.
Mr. A. A. GREEN,
1C, Grosvenor Mansions,
Victoria Street, London, S.W.

TYPEWRITING and DUPLICATING.
MISS MAUDE GATLIFFE,
406, Mansion House Chambers,
London, E.C.

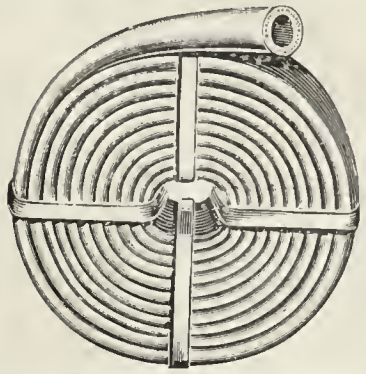
VENTILATORS.
JAMES KEITH & BLACKMAN CO., LTD.,
27, Farringdon Avenue,
London, E.C.

SHEATH BROTHERS,

India Rubber Hose,

SUCTION & DELIVERY FOR ALL PURPOSES.

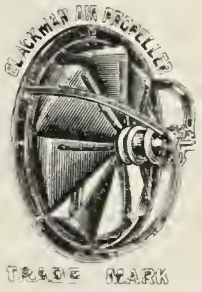
BOROUGH COUNCILS AND RAILWAY COMPANIES.



WASHING URINALS AND FLUSHING SEWERS.

87, CITY ROAD, LONDON, E.C.

BLACKMAN



ELECTRIC FANS.

GOLD MEDAL
PARIS, 1900.

JAMES KEITH & BLACKMAN CO., Ltd.
27, FARRINGDON AVENUE, E.C.
Works—HOLLOWAY, N., and at ARBROATH.

PHENOZONE SOAP

Has been proved to be the most efficient Cleanser for Mosaic and Tesselated Pavements, Marble Floors, Swimming and Slipper Baths, &c., after several years' use in numerous Public Baths, Electricity Stations and other Establishments.

"PHENOZONE SOAP," being in powder, is easy to use; it is also a strong, disinfectant.

SAMPLES FREE.

PHENOZONE SOAP CO.,
Wandsworth, London, S.W.

POOR LAW & LOCAL GOVERNMENT OFFICERS' MUTUAL GUARANTEE ASSOCIATION, LIMD.

Surrey House, Victoria Embankment,
LONDON, W.C.

Opposite the Temple Station, Metropolitan District Railway.

BONDS issued for Officers of Boards of Guardians, County Councils, Urban and Rural District Councils, Parish Councils, Educational Authorities, and all other Local Government Authorities.

Bonds are also issued on Behalf of INLAND REVENUE COLLECTORS.

REDUCED PREMIUMS from 3s. per cent.

Bonds Approved under Seal of Local Government Board and Inland Revenue Department.

Proposal forms and full particulars on application to the Secretary, SHIRLEY FUSSELL.

THE CLARION

THE PIONEER JOURNAL OF SOCIAL REFORM
Edited by ROBERT BLATCHFORD.

You should read **"THE CLARION"** for reliable information as to

MUNICIPALISATION SCHEMES,
THE HOUSING QUESTION,
THE REFERENDUM AND INITIATIVE,
DEMOCRATIC MOVEMENTS at HOME and ABROAD

In fact, if you are interested in Social and Economic Progress, and wish to keep in touch with the new thought and new politics of the 20th Century,

You Must Read **"THE CLARION."**

Send for specimen copy to **"THE CLARION"** Office,
72, FLEET STREET, LONDON, E.C.

TO CONTRACTORS.

To KEEP YOUR NAMES before the Officials and Members of Local Authorities

YOU CANNOT DO BETTER

than insert a running Advertisement in

The MUNICIPAL JOURNAL

WHICH IS STEADILY GROWING IN

CIRCULATION AND INFLUENCE.

"STONWOD" FIREPROOF FLOORS.

A Fireproof, Acidproof, Aseptic, Dustproof, Verminproof Floor Covering, which will outwear Concrete, Wood Blocks, or any other form of floor surface.

IT IS CHEAP, SILENT, DURABLE, WARM, AND EXCEPTIONALLY SANITARY.

Specially recommended for employment in Hospitals, Churches, Schools, Factories, Warehouses, Shops, Flats, Corridors, Offices, &c.

SEND FOR SAMPLES AND DESCRIPTIVE PAMPHLET TO

THE STONWOD FIREPROOF FLOORING Co., Ltd., 109, VICTORIA STREET, WESTMINSTER, LONDON, S.W.

Telegrams: "Stonwod, London.". Works: ASHFORD, MIDDLESEX. Telephone—5286 Westminster.

EQUIFEX DISINFECTORS

SATURATED STEAM (Patent)

Adopted by the Metropolitan Asylums Board for the Brook Hospital; H.M. War Office for the ROYAL VICTORIA HOSPITAL, NETLEY, and by the Governments of India, Victoria, New South Wales, &c.; and the recent Disinfection Stations of the Boroughs of Lambeth, Fulham, Battersea, Brighton, &c., &c.

Rapidity in Operation. Absolute Immunity from Damage by Scorching. Economy in Fuel. Automatic Control and Record of the Work Done.

SPRAY DISINFECTORS FOR ROOMS, &c. Thousands in actual use.

THE PASTEUR FILTER

The only Filter awarded Grand Prix Paris, 1900.

OFFICIAL GOVERNMENT STATEMENT.—"Wherever the Pasteur Filter has been applied Typhoid Fever has disappeared."

Lists:—A68, PASTEUR FILTERS; D18, STEAM DISINFECTORS; F25, SPRAY DISINFECTORS.

J. DEFRIES & SONS, Ltd., 146 & 147, HOUNDSDITCH, LONDON, E.C.

COOLEY'S PATENT

DOUBLE DOWEL-PINS
WILL REVOLUTIONISE
WOOD PAVING.

These DOWELS form a solid mass, effectively counteracting vibration, and thereby considerably increasing the life of the road.

For WOOD-BLOCK FLOORING this system of DOUBLE DOWELLING is recommended in all cases where the floors are subject to heavy traffic, such as in Factories, Warehouses, Public Halls, Schools, Sheds and Yards, &c.

FOR PARTICULARS APPLY—THE

WOOD-PAVING EXPANSION-CHANNEL & PIN CO.,

H. COOLEY, C.E., *Managing Director.* 154, St. Saviour's Road East, LEICESTER.

ENGLISH INSTRUMENTS.

LATEST. CHEAPEST. BEST.

Some Important Specialities just placed on the market—

CALCULATING SLIDE RULE, by Prof. Perry. SCALE GRADED CURVES, by J. Harrison, M.I.M.E., A.M.I.C.E., Wh.Sc. THE VALOMETER, TRANSPARENT-EDGE T-SQUARES, COLOURS, PENCILS, etc., etc.
Just published, post free, New Edition of CATALOGUE, with Coloured Illustrations.

A. G. Thornton,
PRACTICAL MANUFACTURER,
Contractor to H.M. Government,
34, KING ST., WEST,
MANCHESTER, ENG.

DRAWING INSTRUMENTS.

Special make, arrangement, and finish. The most practical and useful to be had, and quite different to what are usually sold.

BIRKBECK BANK

ESTABLISHED 1851.

2½ per cent. INTEREST

allowed on Deposit Accounts Repayable on Demand.

2 per cent. INTEREST

allowed on Current Accounts on minimum monthly balances when not drawn below £100.

ADVANCES MADE.

STOCKS & SHARES BOUGHT & SOLD.

Apply C. F. RAVENSCROFT, Secretary, Southampton Buildings, High Holborn, W.C.

TEMPERANCE PERMANENT BUILDING SOCIETY,

4, Ludgate Hill, London, E.C.

REDUCED MONTHLY REPAYMENTS

For each £100 advanced, including Principal, Premium, and Interest:—

10 years.	12 years.	14 years.	15 years
£1 : 1 : 1	18 : 4	16 : 4	15 : 6

These are believed to be the Lowest Repayments of any Building Society in London.

EDWARD WOOD, Manager

PEARL ASSURANCE CO.,
LIMITED

Chief Offices—London Bridge, City, E.C.

Annual Income	£1,382,000
Funds Increased during year 1904 by ...	£352,000
Claims Paid	£4,263,000

Additional representatives wanted.

P. J. FOLEY, Managing Director.

PATENTS FOR SALE

(ENGLISH AND GERMAN).

One for utilization of the Tide for Motive Power; also patent for Improved Road Paving, or will make other arrangements with any financial gentleman to float a company or syndicate, etc. Circulars containing full particulars will be forwarded by post on application to A. W. MOORE 12, Chatham Place, Hackney, N.E.

Demy 8vo, handsomely bound in cloth, gilt, price 3/6; post free, 3/11.

THE MUNICIPAL YEAR BOOK, 1905

ENLARGED AND OFFICIALLY REVISED.

Full of Valuable Information bearing on the Municipal Trading Controversy.

LONDON: EDWARD LLOYD, LIMITED, 12, SALISBURY SQUARE, FLEET STREET, E.C.

Printed and Published by EDWARD LLOYD Limited, 12, Salisbury Square, London, E.C.

UNIVERSITY OF ILLINOIS-URBANA
3 0112 084269106